DOCUMENT RESUME

ED 088 559 PS 006 780

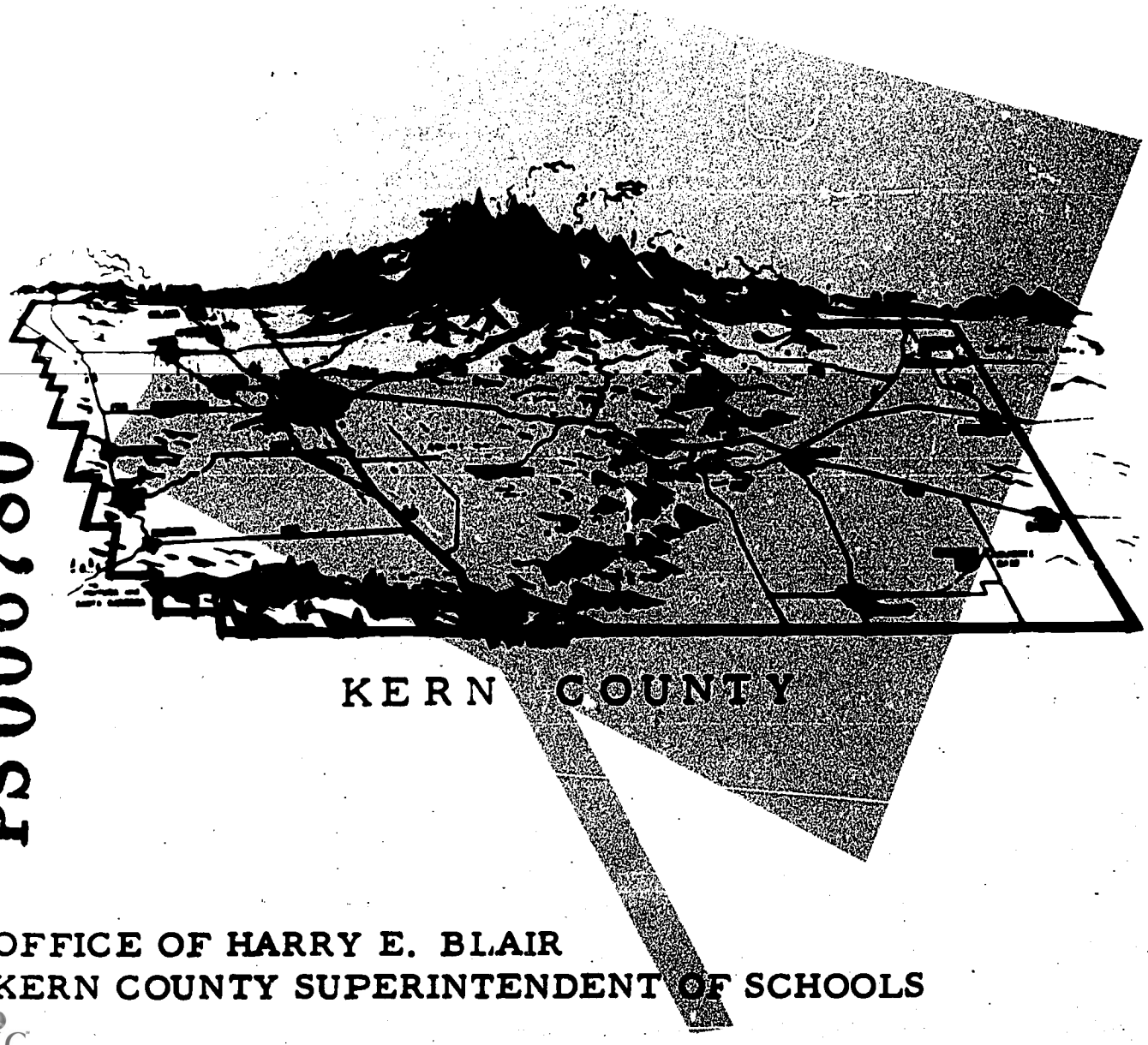
TITLE	An Experimental Approach to Developing Model Programs for Early Childhood Education. Final Report.
INSTITUTION	Kern County Superintendent of Schools, Bakersfield, Calif.
SPONS AGENCY	Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.
BUREAU NO	68-5141
PUB DATE	[71]
GRANT	OEG-9-8-005141-0065(056)
NOTE	91p.
EDRS PRICE	MF-$0.75 HC-$4.20
DESCRIPTORS	Demonstration Programs; *Early Childhood Education; *Individualized Instruction; Instructional Materials; *Language Instruction; *Learning Disabilities; Multimedia Instruction; *Primary Education; *Program Evaluation; Speech Skills; Teaching Methods

ABSTRACT

To demonstrate that individualized prescriptive instruction would improve facility in oral language a preprimary class for children three to five years of age was established in Bakersfield, California; and a primary class for children six through eight years of age was established in nearby Shafter. All pupils were of normal intelligence, had no observable physical or emotional problems, and were from a wide range of socioeconomic backgrounds. All pupils had deficits in specific oral language skills. The "innovative" method employed was that of individually prescribed instruction in oral language, in addition to a wide variety of teacher-made materials, tape recorders, telephones, Flashcard Readers, filmstrip-recorder combinations, 8mm loop projectors, and Polaroid cameras. Test results on a variety of measuring instruments showed gains in both the preprimary and primary classes. (CS)

AN EXPERIMENTAL APPROACH TO DEVELOPING MODEL PROGRAMS FOR EARLY CHILDHOOD EDUCATION

Final Report



OFFICE OF HARRY E. BLAIR
KERN COUNTY SUPERINTENDENT OF SCHOOLS

AN EXPERIMENTAL APPROACH TO DEVELOPING MODEL PROGRAMS FOR EARLY CHILDHOOD EDUCATION

Final Report

Submitted by

Kern County Superintendent of Schools Office
Bakersfield, California

PART I

STATISTICAL DATA

California State Department of Education
721 Capitol Mall
Sacramento, California 95814

Bureau of
Program Planning
& Development

ESEA TITLE III STATISTICAL DATA
Elementary and Secondary Education Act of 1965
(P.L. 89-10 as amended by P.L. 90-247)

THIS SPACE FOR STATE USE ONLY →	PROJECT NUMBER	District Code	COUNTY CODE		

SECTION A - PROJECT INFORMATION

1. REASON FOR SUBMISSION OF THIS FORM (Check one)

A [ ] INITIAL APPLICATION FOR TITLE III GRANT OR RESUBMISSION
B [ ] APPLICATION FOR CONTINUATION GRANT
C [X] END OF BUDGET PERIOD REPORT

2. IN ALL CASES EXCEPT INITIAL APPLICATION. GIVE ASSIGNED PROJECT NUMBER: 68-5141

3. MAJOR DESCRIPTION OF PROJECT: (Check one only)

A [ ] INNOVATIVE C [ ] ADAPTIVE
B [X] EXEMPLARY

4. TYPE(S) OF ACTIVITY (Check one or more)

A [ ] PLANNING OF PROGRAM
B [ ] PLANNING OF CONSTRUCTION
C [ ] CONDUCTING PILOT ACTIVITIES
D [ ] OPERATION OF PROGRAM
E [ ] CONSTRUCTING
F [ ] REMODELING

5. PROJECT TITLE (5 Words or Less)

An Experimental Approach to Developing Model Programs for Early Childhood Education

6. BRIEFLY SUMMARIZE THE PURPOSE OF THE PROPOSED PROJECT AND GIVE THE ITEM NUMBER OF THE AREA OF MAJOR EMPHASIS AS LISTED IN SEC. 203, P.L. 89-10. (See instructions)

Through operation of a pre-primary and a primary classroom, this project will demonstrate individualized prescriptive instruction to improve facility in oral language.

ITEM NUMBER

7. NAME OF APPLICANT (Local Education Agency)	8. ADDRESS (Number, Street, City, State, Zip Code)	
Kern County Superintendent of Schools	Kern County Civic Center 1415 Truxtun Avenue Bakersfield, California 93301	
9. NAME OF COUNTY	10. CONGRESSIONAL DISTRICT	
Kern	18th and 27th	
11. NAME OF PROJECT DIRECTOR	12. ADDRESS (Number, Street, City, State, Zip Code)	PHONE NUMBER / AREA CODE
Dr. Harry E. Blair	Kern County Civic Center 1415 Truxtun Avenue Bakersfield, California 93301	327-2111 805
13. NAME OF PERSON AUTHORIZED TO RECEIVE GRANT (Please type)	14. ADDRESS (Number, Street, City, State, Zip Code)	PHONE NUMBER / AREA CODE
Dr. Harry E. Blair	Kern County Civic Center 1415 Truxtun Avenue Bakersfield, California 93301	327-2111 805

15. POSITION OR TITLE

Kern County Superintendent of Schools

SIGNATURE OF PERSON AUTHORIZED TO RECEIVE GRANT	DATE SUBMITTED
Harry E. Blair	

SECTION A – Continued

16. LIST THE NUMBER OF EACH CONGRESSIONAL DISTRICT SERVED	17A. TOTAL NUMBER OF COUNTIES SERVED: 1	18. LATEST AVERAGE PER PUPIL ADA EXPENDITURE OF LOCAL EDUCATION AGENCIES SERVED
	B. TOTAL NUMBER OF LEA'S SERVED: 48	$ 728.00 (Elementary)
	C. TOTAL ESTIMATED POPULATION IN GEOGRAPHIC AREA SERVED: 351,500	842.00 (Unified)

SECTION B – TITLE III BUDGET SUMMARY FOR PROJECT (Include amount from item 2c below)

1.		PREVIOUS OE GRANT NUMBER	BEGINNING DATE (Month, Year)	ENDING DATE (Month, Year)	FUNDS REQUESTED
A.	Initial Application or Resubmission		6/68	5/69	$ 28,751.00
B.	Application for First Continuation Grant	OEG 9-8-005141-0065(056)	6/69	5/70	$ 63,324.00*
C.	Application for Second Continuation Grant	Same	6/70	6/71	$ 65,880.00
D.	Total Title III Funds				$ 156,813.00
E.	End of Budget Period Report	Same	6/68	6/71	

2. *Complete the following items only if this project includes construction, acquisition, remodeling, or leasing of facilities for which Title III funds are requested. Leave blank if not appropriate.*

A *Type of function (Check applicable boxes)*

1 ☐ REMODELING OF FACILITIES 2 ☐ LEASING OF FACILITIES 3 ☐ ACQUISITION OF FACILITIES

4 ☐ CONSTRUCTION OF FACILITIES 5 ☐ ACQUISITION OF BUILT-IN EQUIPMENT

B 1. TOTAL SQUARE FEET IN THE PROPOSED FACILITY	2. TOTAL SQUARE FEET IN THE FACILITY TO BE USED FOR TITLE III PROGRAMS	C AMOUNT OF TITLE III FUNDS REQUESTED FOR FACILITY
		$

SECTION C – SCHOOL ENROLLMENT, PROJECT PARTICIPATION DATA AND STAFF MEMBERS ENGAGED

1.			PRE-KINDERGARTEN	KINDERGARTEN	GRADES 1-6	GRADES 7-12	ADULT	OTHER	TOTALS	STAFF MEMBERS ENGAGED IN IN-SERVICE TRAINING FOR PROJECT
A	School Enrollment in Geographic Area Served	(1) Public	600	6,616	43,043	38,126	6,734	6,025	101,144	
		(2) Non-public	200		3,039	585			3,824	
B	Persons Served by Project	(1) Public	27	16	39				82	5
		(2) Non-public								
		(3) Not Enrolled								
C	Additional Persons Needing Service	(1) Public								
		(2) Non-public								
		(3) Not Enrolled								

2. TOTAL NUMBER OF PARTICIPANTS BY RACE (Applicable to figures given in item 1B above)	WHITE	NEGRO	AMERICAN INDIAN	OTHER NON-WHITE	TOTAL
	65	13	1	3	82

*Federal Funds = $58,963.00
State Funds = $4,361.00

SECTION C - continued

3. RURAL/URBAN DISTRIBUTION OF PARTICIPANTS SERVED OR TO BE SERVED BY PROJECT

PARTICIPANTS	RURAL		METROPOLITAN AREA		
	FARM	NON-FARM	CENTRAL-CITY	NON-CENTRAL CITY	OTHER URBAN
PERCENT OF TOTAL NUMBER SERVED	16%	7%	65%	3%	9%

SECTION D - PERSONNEL FOR ADMINISTRATION AND IMPLEMENTATION OF PROJECT

1. PERSONNEL PAID BY TITLE III FUNDS

TYPE OF PAID PERSONNEL	REGULAR STAFF ASSIGNED TO PROJECT			NEW STAFF HIRED FOR PROJECT		
	FULL-TIME 1	PART-TIME 2	FULL-TIME EQUIVALENT 3	FULL-TIME 4	PART-TIME 5	FULL-TIME EQUIVALENT 6
A. ADMINISTRATION/ SUPERVISION		1	.5			
B. TEACHER:						
(1) PRE-KINDERGARTEN						
(2) KINDERGARTEN						
(3) GRADES 1-6				1		1
(4) GRADES 7-12						
(5) OTHER Pre-Primary				1		1
C. PUPIL PERSONNEL SERVICES						
D. OTHER PROFESSIONAL						
E. ALL NON-PROFSSIONAL				4		4
F. FOR ALL CONSULTANTS PAID BY TITLE III FUNDS ⟹	(1.) TOTAL NUMBER RETAINED 15			(2.) TOTAL CALENDAR DAYS RETAINED 47		

2. PERSONNEL NOT PAID BY TITLE III FUNDS

TYPE OF UNPAID PERSONNEL	REGULAR STAFF ASSIGNED TO PROJECT			NEW STAFF HIRED FOR PROJECT		
	FULL-TIME 1	PART-TIME 2	FULL-TIME EQUIVALENT 3	FULL-TIME 4	PART-TIME 5	FULL-TIME EQUIVALENT 6
A. ADMINISTRATION/ SUPERVISION		1	.5			
B. TEACHER:						
(1) PRE-KINDERGARTEN						
(2) KINDERGARTEN						
(3) GRADES 1 TO 6						
(4) GRADES 7-12						
(5) OTHER		2	.1			
C. PUPIL PERSONNEL SERVICES						
D. OTHER PROFESSIONAL						
E. ALL NON-PROFESSIONAL						
F. FOR ALL CONSULTANTS NOT PAID BY TITLE III FUNDS ⟹	(1.) TOTAL NUMBER RETAINED 1			(2.) TOTAL CALENDAR DAYS RETAINED 3		

SECTION V - SERVICES OFFERED, PERSONS DIRECTLY SERVED, AND ESTIMATED COST OF SERVICES - ALL PROJECTS ACTIVE DURING

FISCAL YEAR - TOTAL NUMBER OF PARTICIPANTS (Persons May be Counted More Than Once)

A. MAJOR PROGRAMS OR SERVICES	NUMBER OF PUPILS BY GRADE LEVEL				ADULT	OUT OF SCHOOL YOUTH	NUMBER OF NON-PUBLIC PUPILS	ESTIMATED COST (Amount May Overlap)
	Pre-K	K	1-6	7-12				
1. Develop, Plan, Evaluate, or Disseminate Activities	27	16	39		8			$ 38,751
2. Better Utilization of In-Service Education of Instructional Personnel								
3. Program for Institutional Improvement (Organization, Administration)								
4. Education Centers Serving a Large Area								
5. Improve or Expand Curriculum								
Arts (Music, Theater, etc.)								
Language Arts	27	16	39					$128,062
Foreign Languages								
Mathematics								
Science								
Social Studies/Humanities								
Vocational/Industrial Arts								
Other-Specify								
6. Educational Technology Media								
Computers								
TV/Radio								
Other-Specify								
7. Improve Classroom Instruction								
Flexible Schedule, Individual Instruction								
Other-Specify Indiv. Pres. Instr.	27	16	39					$128,062
8. Remedial and Special Education								
Handicapped								
Gifted								
Remedial Reading								
Speech and Hearing								
Other-Specify Deficient in Oral Lang.	27	16	39					$128,062
9. Pupil Personnel Services								
Guidance								
Social Work								
Health								
Psychological								
Attendance								
10. Community Service or Participation								
11. Meeting Critical Educational Needs								
Central City								
Geographically Isolated								
Minority Groups								
Early Childhood	27							$ 42,000
12. Summer Programs								

PART II

NARRATIVE REPORT

PART II

NARRATIVE REPORT

SUMMARY OF PROGRAM

ESEA Title III Project 68-5141 in Early Childhood Education had as its major objective: To operate two model classrooms in which individually prescribed instruction would result in improving preprimary and primary pupils' oral language facility. In the first year of operation, 60 pupils were enrolled and in the second, 55 pupils.

A preprimary class for children three through five years of age was established in Bakersfield, California; a primary class for children six through eight years of age was established in nearby Shafter. All pupils were of normal intelligence, had no observable physical or emotional problems, and were from a wide range of socioeconomic backgrounds. All pupils had deficits in specific oral language skills.

The "innovative" method employed was that of individually prescribed instruction in oral language. In addition to a wide variety of teacher-made materials, the equipment included tape recorders, telephones, the Electronic Futures, Inc. Flashcard Reader, filmstrip-recorder combinations, 8mm loop projectors, and Polaroid cameras. In the primary class the Van Allen language experience approach to reading was employed. Individualized instruction was extensively used in both classes. A complete educational program was carried on in each class, following the Bakersfield City School District and Kern County Superintendent of Schools curriculum guides.

The evaluation for the preprimary class was designed as follows: Test scores (pre- and post-) from the Caldwell Preschool inventory were forwarded to the EPIC Diversified Systems Corporations, Tucson, Arizona, for computerized statistical analysis. In May, 1970, the year's gains on the four parts of the test were 25%, 66%, 33% and 32%, based on the raw scores. In May, 1971, the year's gains were 34.4%, 48.5%, 34.9% and 32.3%.

The evaluation for the primary class was also analyzed by the EPIC Diversified Systems Corporation. In the 1969-70 school year the Listening, Word Analysis, Mathematics and Reading sections of the Cooperative Primary Tests were used (pre- and post-tests). The % gains in percentile in post-test scores were respectively 116%, 26%, 71% and 16%. Because the word analysis and mathematics tests were little related to the project's objectives, in 1970-71 only the Listening and Reading sections were used.

Results were based on pre- and post-tests for pupils new to the program and for mid- and post-tests for the pupils in their second year in the program. It is impossible to summarize the findings briefly. See page 23 and Appendix E for detailed analysis.

Locally developed evaluation checksheets and additional standardized tests were also used. These are described in the section on Analysis of Data and in Appendices G and H.

A program in individualized instruction for the many young children who lack the oral language skills needed for success in the school situation is highly recommended. Prescriptive teaching is an effective approach to this instruction.

THE CONTEXT

The Locale

The local education agency responsible for the project was the Kern County Superintendent of Schools Office. The classrooms were provided without charge by the Bakersfield City and Richland Unified School districts.

Preprimary Class

There are 34 schools in the Bakersfield City School District. The preprimary class was located in Franklin School, Bakersfield. The city has a population of 67,955 with outlying areas increasing this to a total of over 175,000. It has a wide range of socioeconomic classes and racial groups.

The preschool children, about half of the preprimary class, were drawn from the city at large with the parents providing transportation. The kindergarten children lived in the Franklin School attendance area. The school enrolls 600 children, grades kindergarten through six. It is located in a middle-class residential area, but the enrollment district includes the downtown business area. Children come from homes of great wealth to extreme poverty. All minority groups are represented, including a few orientals.

The project class at Franklin School has a far larger representation of minority group children than has the school as a whole. About 36% of the class were of Mexican-American parentage, 24% were black, 4% were Chinese, and the rest Caucasian. Forty-four percent were of low socioeconomic levels. Unemployment in Bakersfield City is over 6%.

Primary Class

The primary class is housed in the Richland Primary School, the largest strictly primary school in California, 800 pupils in kindergarten through third grade. This is the only primary school in the district. The town of Shafter has a population of 5,500 but 50% of the pupils come from rural areas. The town is predominately white with 30% being of Mexican-American parentage and 1% black. The economic structure of the town is built on agriculture, with great extremes in socioeconomic range.

In the primary class, as in the preprimary class, the children are non-migratory. About 6% are Indian, 10% black, 24% Mexican and 60% Caucasian. Nearly 50% are at a low socioeconomic level. In 80% of the homes English is the language primarily used.

The School System

Both classes are conducted under the auspices of the Kern County Superintendent of Schools. The per pupil cost for the Franklin School is $602 and the Richland School is $771. The special program increment in 1969-70 was approximately $475. However, as this was the initial year of operation, most of the equipment was purchased. It is estimated that, in addition to regular per-pupil expenditures, the cost of the initial year of operation for a 30 pupil class would be about as follows:

Salary of Aide	$2,520
Instructional materials	150
Testing costs	60
Capital outlay	1,000
In-service education	100
Evaluation services	2,000

The cost for each subsequent year would be the following:

Salary of Aide	$2,520
Additional instructional materials	150
Testing costs	60
Capital outlay	100

If an additional teacher is employed, the costs would be increased materially.

Needs Assessment

Survey

The need for developing programs for early childhood education was initially identified in an assessment of needs which was conducted by the Kern County Regional Planning and Evaluation Agency. The needs survey was conducted on a county-wide basis and included responses from approximately 547 persons who represented educational and cultural agencies throughout the county. The need for a project in early childhood education was assigned top priority by the Regional Planning and Evaluation Agency. The area of oral language was developed through conferences with local educators, the Regional Planning and Evaluation Agency and the State Department of Education.

Historical Background

Application

The original application for the project, prepared in 1968-69, was based on the needs assessment described above. The application was for funds to establish three model classes: One for "disadvantaged" children, ages 3-4, in which the focus was on environmental orientation and extension; one for "advantaged" children, ages 6-8, with emphasis on creativity; and one for a heterogeneous group of children, ages 3-8. After a year of planning, the Title III unit in the California State Department of Education, considering this to be three projects rather than one, approved continuation only if it were limited to the scope and objectives described in the preceding summary.

Screening

Under the approved plan, the two classrooms enrolled a total of 60 pupils in 1969-70 and 55 in 1970-71. To include only children with oral language disabilities, it was necessary to screen the children. For this purpose a combination of factors was used. No specific cut-off scores were set. The relationship of the child's general ability to his language ability was the key factor. A child with a great contrast between his non-language performance and his language performance was considered the best candidate for the class.

In the preprimary class, the children were included on the basis of the following:

1. Score of 20 or less on Scott Picture Inventory
2. I.Q. of 88 or above on Rutgers Drawing Test
3. Eight or more points lower on Peabody Picture Inventory than on Rutgers Drawing Test
4. Observation of child and interview with parent

In the primary class, the following criteria were used:

1. Recommendation by previous teachers
2. Material on cumulative record kept by school
3. Comparison of non-language and language parts of California Test of Mental Maturity

   Of the 70 children recommended by previous teachers, the 30 children with the greatest discrepancies between the language and non-language scores on the CTMM were chosen. (10 at each grade level)

In both classes the children who were on the borderline were tested individually by a psychologist. Tests used were the

Stanford Benet Intelligence Scale, the Illinois Test of Psycholinguistic Abilities, the Wechsler Intelligence Score for Children, the Wide Range Achievement Test, and the Bender Gestalt Test. The test used in each instance was chosen by the psychologist as most appropriate for his inquiry. The consultant in modern languages on the Kern County Schools' staff tested some children in Spanish. It was found that none of the selected pupils were monolingual speakers of a language other than English.

After the screening process was completed, the children selected were of normal intelligence, with no physical or emotional problems discernable, and with oral language abilities below their general abilities.

Parents were interviewed before the school year began. A detailed description of the year's anticipated activities was given to them and their commitment to their children's remaining in the program for at least one year requested. No difficulty was experienced in obtaining the number of pupils needed; in fact, the second operational year had a waiting list.

THE PROGRAM

Scope

Goal

The purpose of the project was to improve the oral language facility of preprimary and primary pupils by individually prescribed instruction. Two classes averaging 28 pupils each were operated. Children in the preprimary class were 3 through 5 years of age and in the primary class 6 through 8 years of age. All were of normal intelligence but had deficiencies in oral English. Socioeconomic status and racial backgrounds varied.

Personnel

Coordinators

A program coordinator administered the program, working full time during the planning year and three-fourths time during the two years of operation. The coordinator for the planning period was a former member of the California State Department of Education and had 15 years of experience in elementary supervision. During the operational period the coordination was carried on by an elementary consultant who had been on the staff of the Kern County Superintendent of Schools for 23 years. The coordinators participated in recruiting, selection and evaluation of all personnel, carried on administrative duties and coordinated all phases of the project.

Psychologist

In 1970-71 a psychologist was employed for two days each month. He gave special tests, assisted in preparing reporting forms, and aided in diagnosing children's needs.

Preprimary Staff

The staff for the preprimary class consisted of a teacher and two aides. The teacher had long experience as a kindergarten and nursery school teacher and as an administrator. Both aides held child care certificates; one had a provisional elementary credential. Their duties consisted of instructional as well as clerical tasks under the leadership of the teacher. They participated in planning the daily activities and in evaluating children's progress.

Primary Staff

The staff for the primary class consisted of one teacher employed by the project, one teacher employed by the school district in which the class was located, and an aide. The project teacher had responsibility as leader of the team. She had experience as a public school teacher and as a demonstration

teacher in an ungraded primary class in a state college for three years. The district-employed teacher had two years of experience in the second grade in the district. The aide had experience in secretarial and newspaper work, as well as one year's experience as a teacher aide in the district. The teachers were engaged in team teaching with duties shared in an open structure organization. The aide did clerical work and individual and small group instruction as needed.

Responsibilities

In each class the project-employed teacher was responsible for the conduct of the instructional program, wrote prescriptions and prepared all necessary data for the EPIC Diversified Systems Corporation. The Corporation trained the project teachers and the coordinator for one week in the evaluation techniques used in assessing the program.

There was no change in personnel during the two years of operation except in the position of project coordinator, which was held by one person during the year of planning and by another during the two years of operation.

The evaluation of the project was carried on by the EPIC Diversified Systems Corporation (in the 1968-70 school years it was called the EPIC Evaluation Center). Tests were given by the project teachers and the coordinator. Results were compiled by EPIC.

Procedures

This report covers the three years from June 1, 1968 to June 30, 1971. The original grant was from June 1, 1968 to May 31, 1971. However, a one-month extension was granted. All funds have been received from ESEA, Title III.

Activities

Program activities were located at the Franklin School in Bakersfield, the Richland Primary School in Shafter, and the Kern County Superintendent of Schools Office in Bakersfield, California.

Typical classrooms were used by both classes. The primary class had, in addition, a temporary building situated near the classroom. This afforded a single large room and two small ones, one of which served as the project teacher's office. Most of the prescriptions were administered to small groups or individuals in the large room of this building.

The program was reviewed at the beginning, middle, and end of each year, using standardized and teacher-made tests as the bases for evaluation. Progress seemed satisfactory, so no major changes were made.

In addition to the inservice training noted above, members of the staff visited four other schools using individually prescribed instruction, read extensively and attended appropriate sessions at the annual conferences of the California Association for Childhood Education and the Individualized Instruction Conference in Los Angeles. Three consultants met with the staff on several occasions to give guidance and assistance.

Curriculum

The general curriculum followed was that outlined in the Curriculum Guides and Courses of Study issued by the Bakersfield City School District and Kern County Superintendent of Schools Office. Special emphasis was put on oral language, since the program objective was to increase pupils' facility in this field. Individualized reading and mathematics were carried on in the primary class. State texts were used.

A wide variety of methods was followed, of which individually prescribed instruction was a prominent one. The forms developed by the project staff for writing prescriptions are in Appendix A. A bulletin, Prescriptive Teaching, describing the method may be obtained from the Kern County Superintendent of Schools Office.

Daily Schedules

In the preprimary class the daily schedule is typical of kindergarten: free activity, opening discussions, snack, rest, outdoor play, music and literature--in that order usually. Rigid time schedules were not followed. Science, mathematics and art were included in the free activity period. Field trips were taken frequently. The program is discussed more fully in a bulletin entitled Kindergarten Is to Grow, published by the Kern County Superintendent of Schools Office. This bulletin was prepared to aid observing teachers to understand the program more fully.

In the primary class an open structure approach was used. The two teachers and the aide established a weekly program, outlining the instructional periods for the following week. At the opening of the day, each child wrote his own daily schedule, based upon this weekly schedule and a list of additional activities from which he might choose. He followed this schedule throughout the day until shortly before closing, when the class convened as a whole, discussing problems encountered and recording the day's activities. A detailed description of the program entitled Open Structure Approach to Individualized Instruction, may be obtained from the Kern County Superintendent of Schools Office.

Grouping was flexible. Learners worked as individuals, in teams, in groups of three to six, and as members of the entire class. Prescriptions were written usually for individuals although the application might be as a member of a team or small group. Three adults worked with thirty children; the ratio at any given time varied from one-to-one to one-to-thirty.

Motivation

Preprimary Class

In the preprimary class the motivation techniques were much the same as in any good preschool or kindergarten. No pressure was brought to bear on children. The intrinsic interest in the activities offered, the appeal of exciting, colorful materials and the support of understanding adults provided adequate stimulation. A procedure in which each child kept a record of his initial choice during the free activity period each day and transcribed these onto weekly and monthly charts created interest in trying a wide variety of activities. A detailed description is given in Kindergarten Is to Grow.

Primary Class

In the primary class, also, there was no requirement that a child study any particular subject. Motivation grew from the parent conferences and the commitments made there. Each nine weeks in the second operational year every child's parents attended an individual after-school conference. At this time the child showed his parent his daily schedules, papers and a summary of work accomplished. Together they decided how many units in various school subjects should be completed in the nine weeks ensuing. These commitments stimulated the work noticeably. It was also found that, when pacing, boredom, confusion and pressure are removed, the suggestions from teachers, participation in determining the daily activities, and the child's own desire to learn result in responsible and effective study habits. Visitors remarked frequently on the business-like way the children went about their work.

Materials

The instructional aids for the project included "read-to" books, games, audio-visual devices, and library books in greater quantity than are found in most classrooms. Many materials were made by the teachers. Key materials and equipment are listed in Appendix B.

Materials especially effective were telephones, listening centers, 8mm loop film projectors, typewriters and filmstrip and record combinations. Books were transcribed on tape so that the children could follow the words and listen simultaneously. The Electronic Futures Incorporated Flashcard Reader was most useful when teacher-prepared word cards were used. Polaroid and 35mm cameras were used to photograph field trips, class-

room activities, and the children in their own homes. Having two credentialed teachers in each class freed one to take small groups on field trips, reports on which motivated oral expression.

Parent Involvement

In the preprimary class the children learned to keep records and evaluate the variety of their activities. At periodic conferences these records were shared with the parents. Mothers also participated in class activities, and informal conversations took place when the preschool children's parents delivered or picked up their children. Check sheets showing activities and samples of work were used in discussions with parents.

In the primary class, parents also participated frequently in class activities. Conference periods were held at nine week intervals during the second operational year. Child, parent and teacher conferred together, the child bringing his daily schedules and some samples of his work to show his parents. The child, after discussion with his parent, committed himself to completing a certain number of units in mathematics, spelling, and reading in the ensuing period. The teacher's role during the conference was that of listener, supporter and clarifier.

Dissemination Program

Since the in-county dissemination program was an important part of the project, a description is included here. All costs--coordinator's time, travel and publications--were borne by the Kern County Superintendent of Schools Office.

Initiation

In the spring of 1970 all elementary administrators in the county were invited to meetings designed to acquaint them with the project and its possibilities as in an inservice education activity. Visitations to each of the classrooms were made as part of the day's program. A publication describing the project and the dissemination program was distributed.

The dissemination program at that time was conceived primarily as a series of visitations. Teachers were envisioned as spending periods ranging from one day to two and a half weeks observing the classroom activities and being trained in writing individual prescriptions in oral language. In actual practice it was found, since there were no state funds for hiring substitute teachers, the two and a half week observations were impractical. Otherwise, the dissemination program was carried out as planned.

Operation

The following November the program was in full swing. The coordinator stimulated participation by holding conferences in each of the 48 districts in the county with the administrative staff of each school. Teachers signed up for observational periods of one week, two days or one day. Administrators visited the classes.

Aides, retired teachers, teachers of the physically and mentally handicapped, and teachers of English as a Second Language joined large numbers of preschool and primary teachers in visiting the classrooms. Private and parochial schools sent administrators and staff members.

Guidance

The teachers observing for an entire week:

were briefed by the coordinator the first day

observed the class every day and also had opportunity to:

meet with the project teacher each afternoon for explanations of the day's objectives, activities and accomplishments as well as long term plans and procedures

study two volumes of printed materials compiled specifically for their use

receive pertinent bulletins and bibliographies

reproduce any and all materials used in the classroom

listen to teacher-made tapes describing the preparation of individual prescriptions in oral language and see slides accompanying these tapes

met with the coordinator for final evaluation and discussion on the last day of the week.

The teachers visiting for one day only:

observed the class for about thirty minutes

were briefed by the coordinator

observed the class again for the remainder of the day

received pertinent bulletins and bibliographies

after dismissal, met with the project teacher for discussion of the day's activities

Participation

By the end of 1971, 43 public school teachers had observed for one week and 171 for one to three days. About three-fourths of the visiting teachers returned the evaluation questionnaires.

Seventy-six percent gave the highest possible rating (on a five point scale) to the program as an inservice activity for teachers and 84% gave it the highest possible rating as an educational program for children. For details, see Appendix C.

Other means of dissemination evolved as time went by. Each of the project teachers developed a tape and a series of slides on individually prescribed instruction as utilized in her classroom. These were used with visiting teachers as mentioned above and with groups of lay and professional people.

Two bulletins, Open Structure Approach to Individualization and Kindergarten Is to Grow, which described classroom activities were produced and distributed to everyone who visited the classes. These were illustrated with pictures taken by a photographer who made a large number of 35mm slides on the classroom procedures. Two 30-minute video tapes were made showing various aspects of the program. These will be used in the Innovations '70s Conference in Kern County.

The project teachers and the coordinator took part in a county conference on innovative practices, spoke to teachers at district meetings, conferred with individual teachers, gave overviews of their programs to lay groups, and held afternoon and Saturday workshops for teachers. A tri-county parochial school conference and a private school conference devoted some time to studying the program and visiting the classrooms. Classes from a local college and a high school observed classes.

By June of 1971 over 1000 people had visited the classrooms, attended meetings or participated in small group conferences in which the project was presented. Two hundred of these were elementary school administrators.

Budget

Sources

The program funds were obtained from federal and state sources under an ESEA, Title III grant. Classroom and supplies equivalent to those available to other classes in the system were provided by the districts without cost to the project. Some equipment and all dissemination costs were supplied by the Kern County Superintendent of Schools Office.

The total amount of ESEA funds used by the project was The first year the amount spent was $28,751; the second year $63,324; and the third year $65,364.

The districts supplied one teacher, two classrooms, a temporary building, maintenance, insurance, general instructional supplies and some equipment. District costs for the two operational years, based upon ADA figures, were $47,388.

The Kern County Superintendent of Schools Office also supplied a part-time coordinator, publications for dissemination purposes and travel costs involved in dissemination within the county. This was approximately $18,500.

The total cost of the program from all sources was $157,439. This includes costs of dissemination, which are extremely high in a county with an area of 8,000 square miles in which 118,000 people are involved in the educational system.

Projected Costs

The costs to a district planning to initiate individually prescribed instruction in oral language are estimated as follows (in addition to the support given other classes):

One aide, 180 days at $14 per day
Additional instructional materials, $5 per pupil
Testing costs, $2 per pupil
Capital outlay, $1000
Inservice program for teacher, $98 (based upon per enrollee cost of a two week workshop with 20 enrollees)
Evaluation services, if desired, $2,900

The cost for each subsequent year of operation would be:

One aide, 180 days at $14 per day
Additional instructional materials, $5 per pupil
Testing costs, $2 per pupil
Capital outlay, $100

REPORTING THE EVALUATION

Objectives

Preprimary Class

The project objective for the preprimary class was "to increase in-school student performance on the Caldwell Preschool Inventory by 10%." The procedural objectives were that each child should:

1. Display an increased knowledge of Personal-Social Responses as measured scores on items 1-26 of the Inventory.

2. Display an increased comprehension of Associative Vocabulary as measured by scores on items 24-27 of the Inventory.

3. Display an increased comprehension of Numerical Concept Activation as measured by scores on items 48-66 of the Inventory.

4. Display an increased comprehension of Sensory Concept Activation as measured by scores on items 67-85 of the Inventory.

For greater depth and detail, the EPIC Diversified Systems Corporation, the agency which evaluated the project, developed additional objectives. These are described in Appendix D.

Primary Class

In 1969-70

The objectives for the primary class were changed at the end of the first year. Originally the project's objective was "to increase in-school student performance on the Cooperative Primary Test by 15% mean improvement in nine months."

The procedural objectives were that upon exit from the program each child should:

1. Display increased ability to read words, sentences, paragraphs, and longer passages with understanding as measured by scores on the Primary Cooperative Test--Reading.

2. Display an increased ability to listen with comprehension as measured by scores on the Cooperative Primary Test--Listening.

3. Display an increased comprehension of word analysis as measured by scores on the Cooperative Primary Test--Word Analysis.

4. Display an increased comprehension of mathematical understandings as measured by scores of the Cooperative Primary Test--Mathematics.

These objectives were easily reached, as shown in the table below, in which results in September, 1969 and April, 1970, are compared.

Matched pairs "t" statistics and percent gain for Subtest of the Cooperative Primary Tests.

	Listening	Word Analysis	Mathematics	Reading	
"t" Statistic*	3.53	1.72	2.91	3.29	
% gain in percentile score**	116%	26%	71%	169%	

*Critical value for a one tailed "t" statistic at .05 alpha level and 22 degrees of freedom is 1.72.
**Criterion was 15% gain (percentile gain was computed for all subtests).

In 1970-71

However, the tests on mathematics and word analysis seemed irrelevant to an oral language project. In the continuation application for the 1970-71 year, therefore, the objectives were modified. The basic objective was a 15% improvement following nine months of prescriptive instruction on the Listening and Reading parts only of the Cooperative Primary tests. The performance objectives were that each child should:

1. Display increased listening comprehension, as measured by scores on Part I of the Cooperative Primary Tests--Listening.

2. Display increased recall, as measured by scores on Part II of the Cooperative Primary Tests--Listening.

3. Display increased interpretation-evaluation-inference, as measured by scores on Part III of the Cooperative Primary Tests--Listening.

4. Display increased reading comprehension, as measured by scores on Part I of the Cooperative Primary Tests--Reading.

5. Display increased meaning extraction, as measured by scores on Part II of the cooperative Primary Tests--Reading.

6. Display increased interpretation-evaluation-inference, as measured by scores on Part III of the Cooperative Primary Tests--Reading.

For the primary class, too, EPIC developed additional objectives and evaluation devices which are discussed in Appendix E.

Selection of Participants

Adults

The two project teachers were chosen because they had long and highly successful experience as classroom teachers and as demonstrators in teacher training programs. The district-employed teacher in the primary class was a second-year teacher considered to be of outstanding ability. She also had experience as a demonstration teacher in a summer workshop. The aides in the preprimary program held child center permits, having completed the course in the local community college; one also held a provisional teacher's credential, as a result of her work at the California State College, Bakersfield. Both were highly recommended by their college teachers. The aide in the primary class had previous experience as an aide in the same school system and was held in high regard by the administrators and teachers there. She also had experience as a secretary and newspaper reporter. The coordinator had 23 years of experience as a consultant on the Kern County Superintendent of Schools staff and had long had special interest in kindergarten-primary work. The part-time psychologist was assigned by the county schools office. He had worked with young children in previous programs and had four years of experience as a school psychologist.

Children

The children were characterized as being reluctant speakers. They were inclined to be non-communicative and non-verbal, although all had normal intelligence and none had discernable physical or emotional problems. None were monolingual

speakers of a language other than English. Their lack of oral skill was the outgrowth of previous experience: a home with little inter-communication, older siblings who spoke for them, shyness or no need to express desires to obtain them. All socioeconomic levels and all racial groups were represented. Parental consent was secured readily and there was a waiting list for admission.

Screening Preprimary

The screening instruments used in the preprimary class were:

Peabody Picture Vocabulary Tests
Rutgers Drawing Test
A teacher-made assessment which was based on responses to a series of pictures
Interviews with parent and child
Observation of child in classroom setting

The only specific standards are mentioned on page 6. The child's score on the language components as compared with his score on the non-language components was considered important.

Primary

The children in the primary class were recommended by previous teachers and tested with the California Test of Mental Maturity. Again a large discrepency between language and non-language factors was important. The thirty children were the ones with the greatest discrepancies whose names were on a list suggested by previous teachers, keeping a ratio of ten to each grade level. Since there was a total of 900 children in the Richland Primary School, the thirty chosen were definitely non-communicative.

Individual Tests

In both classes some children were borderline cases. They were tested by the psychologist who gave them one or more of the following tests:

Illinois Test of Psycholinguistic Abilities
Stanford Benet Intelligence Test
Wechsler Intelligence Score for Children
Wide Range Achievement Test
Bender Gestalt Test
California Test of Personality

There was no comparison group and the participants were not involved in any other program.

Replacements

No children left the program during the school year but several in each class "graduated" to an age not eligible for the project or moved at the end of the first year. In the preprimary class seven children returned for the second year; in the primary class 18 returned. The ones who left were not particularly different from those who stayed. At the beginning of the second year enough new children were added to bring the preprimary class up to an enrollment of 25, the primary class to 30.

The parents of all children were given the option of placing their children in these classrooms or others. The first operational year three families declined to enroll their children; the second year none declined. There was a waiting list the second year.

The evaluation group was identical with the program group.

Description of Participants

In 1969-70 the total number of pupils was 60; in 1970-71 it was 55. Data are based on this number of participants. All were included in the evaluation. The pupils were ages three through five in the preprimary class and six through eight in the primary class.

Preprimary Beginning Test Scores

At the beginning of the project (Fall, 1969) the mean Intelligence Quotient for the preprimary pupils was 83 on the Peabody Picture Vocabulary Test; in the fall of 1970 it was 89. A non-language instrument, the Rutgers Drawing test, however, indicated a median of 93 in the fall of 1969 and of 95 in 1970. Seven children remained in the program for a second year, which may account for higher scores in 1970.

It must be remembered that these scores are not very reliable because young children are not accustomed to testing situations and seven declined to participate in one or another activity. Being shy and non-verbal, it is likely that their ability was much higher than the tests indicate. The individual tests given by the psychologist, which are not included above, indicate that this is true.

Primary Class Beginning Scores

The mean score for the primary children on the Language Section of the California Mental Maturity Test in the fall of 1969 was 95; in the fall of 1970 it was 98. The mean score on the Non-language part of the California Mental Maturity Test in the fall of 1969 was 104; in the fall of 1970 it was 108.

Measurement of Changes

Measures Used

The measures for evaluating changes in the preprimary class were:

Caldwell Preschool Inventory, 1967 edition
Peabody Picture Vocabulary Test, 1959 edition, Forms A and B
Scott Picture Inventory (teacher-made)
Affective Behavior in Language Checklist
(See Appendix D)

The measures used in the primary class were:

Cooperative Primary Test, 1965 edition, Forms 12B and 23A
Affective Behavior in Language Checklist
Hunter-Gouveia Interview Inventory
(See Appendix E)

Originally it was planned to use categories 8 and 9 of the Flanders Interaction Analysis System. However, the difficulties of taping the soft voices of young and diffident children resulted in an unreliable assessment.

Matching Capabilities

All tests were designated by the publishers as appropriate for the ages of the project pupils.

The reading part of the Cooperative Primary Tests was not given to first grade pupils until November, since it required ability to read not possessed by beginning first graders.

A serious problem developed in the use of the Cooperative Tests for the second and third grade pupils. Instead of giving it in the fall of 1970, it was planned to use the scores of the preceding spring. Unfortunately the tests themselves were lost, a situation not recognized until too late to remedy. Scores from the spring testing could not be used because of the change in the testing design described above. Therefore, the mid-year scores were used and a projection back to September was made. This was unsatisfactory, but the only course that seemed open.

Calendar

Training for all aspects of evaluation was given to the coordinator and project teachers during the summer of 1970. They spent three days in Tucson, Arizona at the EPIC office being briefed in procedures.

The testing periods were as follows:

1969-70	Preprimary	Primary
August	Rutgers, Scott, Peabody (preschool)	
September	Caldwell, ABLC Rutgers, Scott, Peabody (kindergarten)	Cooperative (grades 2 & 3), ABLC, CMM
November		Cooperative Primary (Grade 1), ABLC
January	Peabody, ABLC	Cooperative Primary, ABLC
April	Scott, Caldwell, ABLC	Cooperative Primary, ABLC
1970-71		
August	Rutgers, Peabody, Scott (preschool)	
September	Rutgers, Peabody, Scott (kindergarten)	Cooperative Primary (Grades 2 & 3), ABLC. CMM
November		Cooperative Primary (Grade 1), Hunter-Gouveia
January	Peabody, ABLC	Cooperative Primary, ABLC
February		Hunter-Gouveia
May	Scott, Caldwell, ABLC	Cooperative Primary, ABLC, Hunter-Gouveia

Analysis of Data

Project Objective

Evaluation of the model classroom operation is summarized as follows: Test scores (pre- and post-) from the Caldwell Preschool Inventory, used in the preprimary class at Franklin School, showed a considerable gain in raw scores over the required 10% improvement. In 1969-70, in Personal-Social responses the gain in raw scores was 25%; in Associative Vocabulary, 66%; in Numerical Concept Activation, 33%; in Sensory Concept Activation 32%. In 1970-71, the gain in raw scores were 34%, 49%, 35%, and 32% respectively. The per cent of increase in the mean raw scores of the 17 children who were in the program for their first year was 49%; for the eight children who were in the program for their second year was 23%. This seems to indicate that it is in the first year of the program that children make the greatest growth.

Preprimary Class

Primary Class

In the primary class at Richland the gains on the Cooperative Primary Test were required to be 15%. In 1969-70 the gain in percentile scores in Listening was 116%; in Word Analysis 26%; in Mathematics, 71%; and in Reading 169%. In 1970-71 the evaluation design was changed somewhat: Word Analysis and Mathematics were not used since they were considered irrelevant to project purposes. Analysis of the remaining tests (Listening and Reading) was broken down into sections and analyzed by grade level. The degree to which the project objective was achieved at each grade level is indicated in Tables 1 through 4, Appendix E. Generally, 1969 results on the Cooperative Primary Test showed greater and more consistent gains than did those in 1970-71. This might be due to the fact that of the 26 children in the program in 1970-71, 18 had also been in the program in 1969-70 and had made gains in that first year of program operation far beyond expectations. These 18 children consequently made little significant improvement later. The smaller growth in 1970-71 might be due in part to the small number of items in some parts of the Reading and Listening Tests.

Specific Objectives

In addition to the evaluation designed to measure attainment of the project objective, the EPIC Diversified Systems Corporation also evaluated the project on the basis of more specific objectives. They were:

1. Pupils will develop a greater knowledge of oral language as measured by the Caldwell Preschool Inventory and the Cooperative Primary Test.

2. Pupils will develop a greater comprehension of oral language as measured by the Caldwell Preschool Inventory and the Cooperative Primary Test.

3. Pupils will apply oral language as measured by the ratio of the number of running words used by the pupils to the number of prompts used by the teacher in an interview utilizing the Scott Picture Inventory (preprimary only.)

4. Pupils will respond positively toward oral language as measured by the Affective Behavior Language Checklist (ABLC).

The tests used also included the Peabody Picture Vocabulary Test for the preprimary children and the Interest Inventory for the primary children. The Interest Inventory form is included in Appendix H.

For complete results from the preprimary program (Franklin School facility), see Appendix D; for the primary program (Richland School facility), see Appendix E.

Recommendations

A program in individualized instruction in oral communication for the many young children who lack the oral language skills needed for success in the typical school situation is highly recommended. Prescriptive teaching has been demonstrated to be an effective approach to this type of instruction.

Factors to be considered in establishing a program in individually prescribed instruction in oral language are:

1.0 Precise assessment must be made.

1.1 In selecting children

1.1.1 A true language lag must exist rather than lack of verbality due to emtional or physical problems, or little or no experience with the English language.

Suggested instruments:
Illinois Test of Psycholinguistic Abilities
Vocabulary Subtest in WISC or Benet Tests
Peabody Picture Vocabulary Test
Caldwell Preschool Inventory

1.2 In diagnosing specific language needs.

1.2.1 Above instruments may be used.

1.3 In frequent, routine testing of skills being emphasized

1.3.1 Teacher-made tests like the Scott Picture Inventory or the Hunter-Gouveia Interest Inventory may be used.

2.0 Preparing prescriptions is a time-consuming task. In order to write and implement prescriptions, teachers must be given adequate time, training, and assistance from specialized consultants.

3.0 Children appear to make their greatest progress during their first year of participation in this type of program. In considering cost effectiveness the one-year program provided a greater cost/benefit per project participant than did the two-year program. Thus, where resources are limited, it would be better to give more children one year of participation rather than fewer children two or more years.

PART III

FINAL EXPENDITURE REPORT

Form III-104

CALIFORNIA STATE DEPARTMENT OF EDUCATION
Bureau of Instructional Program Planning and Development
Title III, E.S.E.A.
Sacramento, California 95814

PROPOSED BUDGET SUMMARY/EXPENDITURE REPORT OF FEDERAL FUNDS

Name and Address of Agency: Kern County Supt. of Schools Office
1415 Truxtun Avenue, Bakersfield, California 93301

Project Number: 68-5141

PART I - EXPENDITURES (other than construction)

___ Proposed Budget Summary*
___ Estimated Expenditure Report
x Final Expenditure Report

Budget Period, (Month, Day & Year)
Beg.: 6/1/70 End: 6/30/71*

Expenditure Accounts		EXPENSE CATEGORIES							
		Salaries							
FUNCTIONAL CLASSIFICATION	Account No.	Professional	Nonprofessional	Contracted Services	Materials & Supplies	Travel	Equipment	Other Expenses	TOTAL EXPENDITURES
1	2	3	4	5	6	7	8	9	10
1. Administration	100								
2. Instruction	200	41,033.67	13,241.70	200.00	1,843.04	228.69		300.00	60,847.10
3. Health Service	400								
4. Pupil Transportation Services	500								
5. Operation of Plant	600				55.10				55.10
6. Maintenance of Plant	700								
7. Fixed Charges	800	2,063.89	2,397.91						4,461.80
8. Food Services	900								
9. Community Services	1100								
10. Remodeling (if costs total more than $2,000 enter in Part II)	1220c								
11. Capital Outlay (Equipment only)	1269						-0-		
12. TOTALS →		43,097.56	15,639.61	200.00	1,898.14	228.69	-0-	4,300.00	65,364.00

Authorized Agent: Hayden Blair (Signature)

Revised Date: February 4 1972

*Includes authorized extension from 5/31/71

Form III-104

PART II - CONSTRUCTION EXPENDITURES

(Check One)

___ Proposed Budget Summary

___ Estimated Expenditure Report

___ Final Expenditure Report

Budget Period (Month, Day & Year)
Beginning:
Ending:

	EXPENDITURE ACCOUNTS	Acc't Number	Amount	Negotiated Budget
	1	2	3	4
1	SITES			
A	Professional Services	1210a		
B	Improvement to Sites	1210c		
2	BUILDINGS			
A	Professional Services	1220a		
B	New Buildings and Building Additions	1220b		
C	Remodeling (if $2,000 or less, enter in Part I)	1220c		
3	ADMINISTRATIVE EXPENSES (Specify Below)	1220		
A				
B				
4	LEASING OF FACILITIES			
5	TOTAL		$	$

PART III - SUMMARY - AUTHORIZATIONS, EXPENDITURES AND BALANCES

Budget Period (Month, Day and Year)
Beginning: 6/1/70 Ending: 6/30/71

___ Estimated Expenditure Report

x Final Expenditure Report

___ Project Continuing

x Project Terminated

1	2	3
AUTHORIZATIONS, EXPENDITURE AND BALANCES		
1. Amount of Grant Award for Budget Period →	65,225.00	
2. Unexpended Balance from Grant of Prior Budget Period →	655.00	
3. Total Amount Authorized for Expenditure for the Budget Period (Sum of Items 1 & 2) →		65,880.00
4. Expenditures during Budget Period →		65,364.00
5. Unexpended Balance of Funds Authorized for Expenditure for the Budget Period →		516.00

PART IV - CUMULATIVE TOTALS

1. Cumulative Total of Grants Awarded Since Project Inception →	165,084.00
2. Cumulative Total of Cash Received Since Project Inception →	165,059.00

CERTIFICATION: I CERTIFY that the expenditures reported above have been made, and that all obligations have been liquidated; that this project has been conducted in accordance with applicable laws and regulations; that the approved application for this project plus any approved amendments are on file; and that full records of receipts and expenditures have been maintained and are available for audit.

Signature of Authorized Agent _____ Date _____

CALIFORNIA STATE DEPARTMENT OF EDUCATION
BUREAU OF PROGRAM PLANNING AND DEVELOPMENT
TITLE III, ESEA

INVENTORY OF EQUIPMENT ACQUIRED WITH TITLE III, ESEA FUNDS

LEA Kern County Superintendent of Schools Office Date August 1, 1971

Project Title An Experimental Approach to Developing Model Programs for Early Childhood Education Project Number 68-5141

Instructions: Itemize equipment acquired with Title III, ESEA funds. Detail only those items costing $100.00 or more. Enter appropriate data in the remaining columns. The Authorized Agent must sign the certification at the bottom of the last page of the inventory.

	Equipment Item	LEA Serial or I.D. Number	Unit Cost of Item	Fiscal Year Purchased	*Current Location (School/Office)	Current Use of Item
1	Typewriter Desk	ECE 1	$177	1968	Co. Supt. of Schools	Ed. Division Staff
2	Salesman's Desk	ECE 2	$137	1968	Co. Supt. of Schools	Ed. Division Staff
3	Elec. Typewriter	ECE 7	$535	1968	Co. Supt. of Schools	Ed. Division Staff
4	Exec. Desk	ECE 8	$189	1968	Co. Supt. of Schools	Ed. Division Staff
5	Exec. Desk	ECE 9	$189	1968	Co. Supt. of Schools	Ed. Division Staff
6	Sony Tape Recorder	ECE 13	$100	1969	Co. Supt. of Schools	Ed. Division Staff
7	DuKane filmstrip projector	ECE 15	$195	1969	Richland School Dist.	Primary School
8	Smith-Corona Typewriter	ECE 26	$114	1969	Co. Supt. of Schools	Ed. Divison Staff
9	Audio Flashcard Reader	ECE 27	$284	1969	Co. Supt. of Schools	IRC exhibit
10	Record Player	ECE 28	$100	1969	Co. Supt. of Schools	Preschool Prog.
11	Audio Flashcard Reader	ECE 32	$284	1969	Co. Supt. of Schools	PreSchool Prog.
12	Film Loop Projector	ECE 33	$157	1969	Richland School Dist.	Primary School
13	Remington Typewriter	ECE 34	$117	1970	Co. Supt. of Schools	Ed. Division Staff
14	Remington Typewriter	ECE 35	$117	1970	Co. Supt. of Schools	Ed. Division Staff
15						
16						

I hereby certify that the above-listed equipment is being utilized in accordance with Federal and State Regulations pertaining to ESEA III, and that the above information represents a true and accurate statement to the best of my knowledge.

*s of July 1, 1971

Authorized Agent Harry L. Blair (Signature)

APPENDICES

TITLE III ESEA #68-5141
KERN COUNTY, CALIFORNIA
FRANKLIN FACILITY

PRESCRIPTIVE TEACHING CONTINUUM

FOLLOW-UP:
☐ original entry- ☐ concluded
☐ original- ☐ re-enter
☐ re-entry- ☐ concluded

STUDENT:

SYMPTOMS:

PRE-TEST:

DIAGNOSIS:

PRESCRIPTION APPLIED:

METHOD:
ORGANIZATION:

CONTENT: (pupil selects)

PROGNOSIS

BEHAVIORAL OBJECTIVE:

TERMINAL OBJECTIVE:

BEHAVIORAL OBSERVATION:

Date	Student Participation	P	N	Elicitor

POST-TEST:

MONITORING

CONTENT CHANGES:

POST-TEST RESULTS:

OTHER:

Kern County Supt. of Schools Office

Appendix A

APPENDIX B

MAJOR ITEMS OF EQUIPMENT AND MATERIALS

Audio

Audio Flashcard Reader

Tape

Listening Posts

Telephones

Visual

Filmstrips

8mm Loop Film

Television

Films

Library Books

Motor

Typewriters

Puppets

Sand and Water Table

Gardening, pets, and cooking equipment

Easels

Toys and Games

Appendix C

DISSEMINATION PROGRAM
1970-71

Number of Participants

Visitations to Classrooms

One-day visitations:
- Public School Teachers - 171
- Aides - 18
- Public School Administrators - 77
- Private School Teachers and Administrators - 23

One-week visitations:
- Public School Teachers - 43
- Aides - 5

Meetings

Held in demonstration classrooms:
- Public School Teachers - 110
- Private School Administrators - 16

Held in local public schools:
- Teachers - 151
- Administrators - 15

Held in local private school:
- Teachers and administrators - 21

Other meetings - 115

Individual and Small Group Conferences

- Public School Administrators - 92
- Private School Administrators - 3

College Courses - 110 persons

Innovations '70 Conference - 155 persons

Special Assistance - 6 teachers

Total Number of Participants - 1,131

DISSEMINATION PROGRAM

Responses to Questionnaire on Visitations

One-day visitations

Number returned - 139

On scale 1 (not helpful) to 5 (very helpful):
76% rated dissemination program 5
20% rated dissemination program 4
4% rated dissemination program below 4

On scale 1 (not effective) to 5 (very effective):
83% rated class program 5
16% rated class program 4
1% rated class program below 4

One-week visitations

Number returned - 21

On scale 1 to 5 (as above):
71% rated dissemination program 5
29% rated dissemination program 4

On scale 1 to 5 (as above):
90% rated class program 5
10% rated class program 4

APPENDIX D

Franklin School Facility (FY 1971)

Identification of Descriptive Variables

Evaluation of Project Objectives

Part I

Part II

IDENTIFICATION OF DESCRIPTIVE VARIABLES

FRANKLIN SCHOOL FACILITY

BEHAVIOR

Cognitive: Knowledge, Comprehension, and Application levels

Affective: Response level

Psychomotor: None

INSTRUCTION

Organization

Daily schedule for children: 3 hours, five days a week, September 10 to June 18.

Non-graded--homogeneous grouping by language ability, self-contained classroom.

Content

Peabody Kits
Read-to books on preschool and kindergarten levels
Records, films, filmstrips
Tape recordings (primarily teacher made)
Flannel board, stories
"Try" materials
Pictures made by Polaroid and 35mm cameras
Teacher-made flashcards for Audio Flashcard Reader (EFI)
Pictorial charts
Objects relating to home center, mathematics concepts, science concepts

Equipment

Tape recorder
Polaroid camera
Listening posts
Phonograph
Piano
Filmstrip and slide projectors
Audio Flashcard Reader (EFI)

Facilities

Large kindergarten room, toilets
Playground and indoor/outdoor playground equipment

Cost (FY 1971)

Personnel:
- Instructional Assistant: $14,940 per year
- Aide (180 days, 7 hours per day): $2,835
- Services of half time project secretary: approximately $25 per week
- Senior Aide (180 days, 4 hours per day): $2,520
- Coordinator: one-fourth time, approximately $4,512

Evaluation services: $1,275 per year
Instructional Materials: $500 per year
Curriculum supplies: $100 per year
Test materials: $150 per year
Travel: $600 per year
Consultants: $200
Office Supplies: $275
Psychometrist (1 day per month): $775

INSTITUTION

Students

1. Total of twenty-five, three to five years of age at the beginning of the school year.
2. Normal intelligence as measured by Peabody Picture Vocabulary Test, Wechsler Preschool and Primary Test, and Rutgers Drawing Test.
3. Immature in language development:
   a. communicate only with signaling or fragmentary sentences
   b. avoid relating experiences, engaging in spontaneous or imaginative conversation
   c. are reluctant to communicate
   d. use non-standard English
4. Selection on basis of:
   a. Rutgers Drawing Test, Peabody Picture Vocabulary Test, and teacher interviews
   b. Recommendation of school principal, counselor, kindergarten teacher
5. Emotionally stable
6. Physically unimpaired
7. Not monolingual speakers of a language other than English

Staff

1. Instructional Assistant--Mrs. Olga Scott (215 days per year)
   a. Identification Data:
      (1) Age: 49
      (2) Sex: Female
      (3) Race: Caucasian
      (4) Citizenship: United States
      (5) Religion: Protestant
      (6) Health: Good

   b. Education and Experience:
      (1) AB in Liberal Arts + 55 units
      (2) Science major, Education and Psychology minors
      (3) Two years preschool experience; nineteen years Kindergarten and general elementary teaching
      (4) Administrative Assistant, Elementary School District
      (5) Demonstration Teacher, Fresno State College, Bakersfield Center
      (6) Established 5,000 volume elementary school library (responsible for selection, fiscal, and administration)
      (7) Testing Coordinator
      (8) Five years sheet metal shop owner and manager

   c. Professional Affiliations:
      (1) Life member, NEA
      (2) Honorary Life member, PTA
      (3) California Teachers Association
      (4) California Association for Childhood Education

   d. Duties:
      (1) Select students on basis of preliminary testing and established criteria
      (2) Organize classroom
      (3) Diagnose individual pupil needs
      (4) Write prescriptions, utilizing the individual approach
      (5) Instruct pupils in activities related to prescriptions
      (6) Evaluate pupil growth, based upon behavioral objectives and pre- and post-testing
      (7) Serve as model of standard English usage
      (8) Direct activities of aides, coordinate activities with school personnel, provide parent conferences

2. Aide--Jannie Dutton (180 days per year, 7 hours per day)
   a. Identification Data:
      (1) Age: 22
      (2) Sex: Female

(3) Race: Black
(4) Citizenship: United States
(5) Religion: Protestant
(6) Health: Excellent

b. Education and Experience:
(1) High School graduate
(2) 62 units of Junior College work
(3) Major--early childhood education
(4) Three months experience in a Headstart program
(5) Served as a preschool and nursery school student volunteer

c. Duties:
(1) Will assist:
(a) by reading stories to children
(b) on field trips
(c) in general classroom management
(d) by observing and recording behavior
(e) by preparing materials of instruction

3. Senior Aide--Sylvia Pena (180 days per year, 4 hours per day)
a. Identification Data:
(1) Age: 22
(2) Sex: Female
(3) Race: Mexican-American
(4) Citizenship: United States
(5) Religion: Catholic
(6) Health: Excellent

b. Education and Experience:
(1) High school graduate
(2) Graduate of Junior College
(3) Major--early childhood education
(4) Preschool and nursery school experience
(5) Provisional Teacher Credential

4. Administrator--Miss Nina Jorstad (one-fourth time involvement)
a. Identification Data:
(1) Age: 60
(2) Sex: Female
(3) Race: Caucasian
(4) Citizenship: United States
(5) Religion: Lutheran
(6) Health: Excellent

b. Educational Experience:
   (1) History and English majors
   (2) Master's degree in Elementary Education
   (3) Teacher
      (a) Rural school in Iowa, three years
      (b) Elementary grades in Iowa, two years
      (c) Secondary schools in Iowa and Wisconsin, three years
      (d) College--University in Wisconsin and California, three years
   (4) Supervisor, county, Wisconsin, six years
   (5) Coordinator, county, California, twenty-five years

c. Professional Affiliations:
   (1) NEA
   (2) CTA, California Association for Childhood Education
   (3) Association for Supervision and Curriculum Development
   (4) Committee on Early Childhood Education, Kern County
   (5) International Reading Association, Associate Member
   (6) California Elementary School Administrators Association

d. Duties:
   (1) Administration
   (2) Coordination

5. Specialist
   a. Psychologist - 1 day per month

Families of Participants

Comparatively permanent residents in district
Informal involvement in program
Low to upper middle socioeconomic classes
Variety of racial backgrounds
English spoken in the home

Community

Integrated neighborhood in the city of Bakersfield
Residential-business area with industry gradually moving in
Preschool pupils transported from contiguous districts

POPULATION

The population in concern consists of those non-lingual children, between the ages of three and five years inclusive, and residing in the city of Bakersfield, California.

SAMPLE

There was only an evaluative sample--no control sample was used. The sampling procedure was purposive and as follows:

1. Total of twenty-five students, three to five years of age.
2. Normal intelligence as measured by Peabody Picture Vocabulary Test, Wechsler Preschool and Primary Tests, and Rutgers Drawing Test.
3. Immature in language development:
   a. communicate only with signaling or fragmentary sentences
   b. avoid relating experiences, engaging in spontaneous or imaginative conversation
   c. are reluctant to communicate
   d. use non-standard English
4. Selected on basis of:
   a. Peabody Picture Vocabulary Test, Rutgers Drawing Test, Scott Picture Inventory
   b. Recommendation of school principal, counselor, kindergarten teacher
5. Emotionally stable
6. Physically unimpaired
7. Not monolingual speakers of a language other than English

PROCEDURES

1. The sample was selected during the first three weeks of September, 1969.
2. All pre-test data were collected during the last two weeks of September.
3. All mid-test data were collected during the first three weeks of January.
4. The post-test data were collected between May 1 and May 15.
5. The EPIC Evaluation Center staff coded the Caldwell Preschool Inventory for knowledge and comprehension items.

EVALUATION OF THE PROJECT OBJECTIVE (FY 1970)
PART I
ANALYSIS OF THE DATA

Project Objective

1.0 To increase in-school student performance on the Caldwell Pre-School Inventory by 10 percent improvement in nine months. *

From Table 1 below one can see that the overall objective was met on all subtests of the Caldwell Pre-School Inventory; all raw score gains exceeded ten percent.

Procedural Objectives

Upon exit from this program each child will:

1.1 Display an increased knowledge of Personal-Social Responses as measured by scores on items 1-26 of the Pre-School Inventory.
1.2 Display an increased comprehension of Associative Vocabulary as measured by scores on items 27-47 of the Pre-School Inventory.
1.3 Display an increased comprehension of Numerical Concept Activation as measured by scores on items 48-66 of the Pre-School Inventory.
1.4 Display an increased comprehension of Sensory Concept Activation as measured by scores on items 67-85 of the Pre-School Inventory.

Matched pair "t" statistics were calculated from raw scores for each subtest of the Caldwell Pre-School Inventory. As can be seen from Table 1, all were significant at the .01 alpha level. That is, real increases have been recorded on each of the four subtests, indicating that all objectives for this age group have been met.

TABLE 1

Matched pair "t" statistics and percent gain for Subtests of the Caldwell Pre-School Inventory.

	Personal-Social Responses	Associative Vocabulary	Numerical Concept Activation	Sensory Concept Activation	
"t" statistic**	3.52	4.28	3.72	3.96	
% gain raw score+	25%	66%	33%	32%	

**Critical value for one tailed "t" statistic at .01 level and 24 degrees of freedom is 2.49.
+Criterion was 10% gain.

*Note that actual time interval was slightly less than seven months.

EVALUATION OF THE PROJECT OBJECTIVE (FY 1971)*

PART I

ANALYSIS OF THE DATA

Project Objective

To operate a model classroom in which individually prescribed instruction will result in improving pre-primary pupils' oral language facility. Performance criteria: 10% mean improvement, following nine months of prescriptive individualized instruction on the Caldwell Preschool Inventory (ages 3-5)

From Table 1 below it is evident that the project objective was met. The students' increase in oral language facility was significant in all categories identified on the Caldwell Preschool Inventory using a 10% raw score gain as a criterion.

Prodecural Objectives

Upon exit from this program each child will:

Display an increased Knowledge of Personal-Social Responses as measured by scores on items 1-26 of the Pre-School Inventory.

Display an increased comprehension of Associative Vocabulary as measured by scores on items 27-47 of the Pre-School Inventory.

Display an increased comprehension of Numerical Concept Activation as measured by scores on items 48-66 of the Pre-School Inventory.

Display an increased comprehension of Sensory Concept Activation as measured by scores on items 67-85 on the Pre-School Inventory.

Matched pair "t" statistics were calculated from raw scores for each subtest of the Caldwell Pre-School Inventory. All four procedural objectives were met as evidenced by the data in Table 1. The gains achieved by the students were significant for all four of the procedural objectives.

*See preceding page for Evaluation of Project Objective for FY 1970.

TABLE 1

Matched pair "t" statistics and percent gain for subtests of the Caldwell Preschool Inventory

	Personal-Social-Responses	Associative Vocabulary	Numerical Concept Activation	Sensory Concept Activation
"t" statistic	7.45*	7.39*	4.77*	7.15*
% gain from first test**	34.4	48.5	34.9	32.3

*Significant beyond the .01 level.
**Criterion was 10% gain.

The percent of gain computed is equal to the gain from the first test using the first test score as criterion.

PART II

ADDITIONAL SPECIFIC OBJECTIVES (FY 1970)

1. Pupils will develop a greater knowledge of oral language as measured by the Caldwell Pre-School Inventory.

2. Pupils will develop a greater comprehension of oral language as measured by the Caldwell Pre-School Inventory.

3. Pupils will apply oral language as measured by the ratio of the number of running words used by the pupil to the number of prompts used by the teacher in an interview utilizing the Scott Picture Inventory.

4. Pupils will respond positively toward oral language as measured by the Affective Behavior Language Checklist (ABLC).

ANALYSIS OF THE DATA

Objective 1

Pupils will develop a greater knowledge of oral language as measured by the Caldwell Pre-School Inventory.

The pre-test and the post-test scores on the knowledge items in the Caldwell Pre-School Inventory were compared using a matched-pairs t-test.* As indicated by the statistically significant result shown in Table 1, the objective was met--the students did gain knowledge of oral language.

TABLE 2

COMPARISON OF PRE/POST KNOWLEDGE AND COMPREHENSION SCORES OF ORAL LANGUAGE, AS MEASURED BY THE CALDWELL PRE-SCHOOL INVENTORY

Score	Pre-Mean	Post-Mean	N	Standard Error	t
Knowledge	17.38	26.88	16	1.24	-7.66**
Comprehension	25.06	42.13	16	1.75	-9.75**

*See Appendix B, page 46 for assignment of items.

**When the sample size (N) is 16, any value of "t" less than -2.95 is significant beyond the .01 level: $t_{(.01,\ 15)} = 2.95$.

Objective 2

Pupils will develop a greater comprehension of oral language as measured by the Caldwell Pre-School Inventory. *

The analysis used for Objective 1 was used to test for differences between pre- and post-comprehension scores. As shown in Table 1, the post-test comprehension scores were much higher than the pre-test scores. This clearly indicates that the pupils did develop a greater comprehension of oral language and that the objective was met.

Objective 3

Pupils will apply oral language as measured by the ratio of the number of running words used by the pupil to the number of prompts used by the teacher in an interview utilizing the Scott Picture Inventory.

As with Objectives 1 and 2, a matched-pairs t-test was used to compare pre-test scores to the post-test scores. As stated in the objective, these scores were the ratio of the number of running words used by the student to the number of prompts used by the teacher. Table 2 shows that there was a very significant increased from pre-test to post-test in this ratio, meaning that there were more running words per teacher prompt on the post-test than on the pre-test. Simply, the pupils were more able to apply oral language at the end of the study than at the beginning--the objective was met.

TABLE 3

MATCHED-PAIRS T-TEST COMPARING PRE- AND POST-APPLICATION OF ORAL LANGUAGE SCORES

Pre-Mean	Post-Mean	N	Standard Error	t
8.28	125.13	24	24.87	-4.70

$t_{(.01,\ 23)} = 2.81$

Objective 4

Pupils will respond more positively toward oral language as measured by the Affective Behavior Language Checklist (ABLC).

The Affective Behavior Language Checklist used to measure the behavior in Objective 4 was adapted from the Affective Behavior Checklist developed jointly by the EPIC Evaluation Center and Wilson Elementary District of Phoenix, Arizona.

Using the checklist, the teacher observed the students three times: In September, January, and April. The checklists were then scored at EPIC, yielding five scores which reflected the pupils' response to oral language with respect to (1) self, (2) groups, (3) organization of school and society, (4) general classroom behavior, and (5) the total of scores 1 through 4. The total score was used in the test of the objective.

The statistical analysis was again a one-way, repeated measures analysis of variance. The results of that analysis are shown in Table 4.

TABLE 4

REPEATED MEASURES ANALYSIS OF VARIANCE
ON ABLC SCORES
N = 23

Score	Source	SS	df	MS	F
Total	Treatment	8067	2	4033.56	65.40**
	Residual	2713	44	61.67	
Self	Treatment	1052	2	526.28	55.03**
	Residual	421	44	9.56	
Groups	Treatment	403	2	201.57	34.35**
	Residual	258	44	5.87	
Organization of School and Society	Treatment	391	2	195.71	23.53**
	Residual	366	44	8.32	
General Classroom Behavior	Treatment	384	2	191.84	34.36**
	Residual	246	44	5.58	

**With 2 and 44 degrees of freedom (df), any value of F greater than or equal to 5.12 means that the statistical test was significant at the .01 level. In this case, an F greater than or equal to 5.12 indicates that the pupils did respond more positively toward oral language in April than they did in September.

The very large F value for total ABLC score indicates beyond any reasonable doubt that Objective 4 was met. The large F values for each of the four subscores clearly show that the changes in the total score were due to very significant positive changes in each of the subscores.

FURTHER ANALYSIS

A correlation analysis was performed to determine the relationships between knowledge, comprehension, application, Peabody and ABLC (total) change scores. The results of this analysis are shown in Table 5.

TABLE 5

CORRELATION ANALYSIS

	Comprehension	Application	ABLC (Total)	Peabody
Knowledge	$.53^{2}$	$.18^{2}_{2}$	$.19^{2}_{2}$	$.55^{1}_{1}$
Comprehension		$.25^{2}$	$.50^{4}$	$.20^{3}_{1}$
Application			$-.09^{4}$	$.92^{1}$
ABLC (Total)				$.53^{1}$

1. N = 10 $r_{(.05)} = \pm .63$
2. N = 12 $r_{(.05)} = \pm .58$
3. N = 17 $r_{(.05)} = \pm .48$
4. N = 20 $r_{(.05)} = \pm .44$

The following is an example of how Table 5 should be read:

The correlation between comprehension of oral language and the ABLC (Total) score is .50. The correlation was based on a sample of twelve pupils. To be statistically significant, the correlation would have to be greater than or equal to .48 or less than or equal to -.48. Clearly, this correlation of .50 is not significant.

The only significant correlation in Table 5 is the correlation between the application of oral language score and the Peabody score. This extremely high correlation indicates that these two scores measure the same thing. The amount of common variation between them is .92 x .92 or 84%.

SUMMARY

The cognitive objectives concerned with gains in knowledge, comprehension, and application of oral language were met. The objective concerned with more positive affective responses toward oral language was also met.

A correlation analysis revealed that the measure of application of oral language and the Peabody Test were measuring essentially the same quantity.

LIMITATIONS

Generalizability

This evaluation report and the evaluation program from which it results were designed and written specifically for the Franklin Early Childhood Program. There was no intent or effort made to make the results herein generalizable to other situations.

Statistical Error

The use of probability statistics always incurs the possibility of making incorrect inferences from the data.

Measurement

Inferences drawn from statistical findings are limited by the validity and reliability of the measurement instruments involved.

PART II

ADDITIONAL SPECIFIC OBJECTIVES (FY 1971)

1. Pupils will develop a greater knowledge of oral language as measured by the Caldwell Preschool Inventory.

2. Pupils will develop a greater comprehension of oral language as measured by the Caldwell Preschool Inventory.

3. Pupils will apply oral language as measured by the ratio of the number of running words used by the pupil to the number of prompts used by the teacher in an interview utilizing the Scott Picture Inventory.

4. Pupils will respond positively toward oral language as measured by the Affective Behavior Language Checklist (ABLC).

ANALYSIS OF THE DATA

Objective 1

Pupils will develop a greater knowledge of oral language as measured by the Caldwell Preschool Inventory. (Refer to Appendix for listing of items identified as Knowledge.)

The pre-test and the post-test scores on the knowledge items in the Caldwell Preschool Inventory were compared using a matched-pairs t-test* The objective was met as evidenced by the data presented in Table 2. The students did gain significantly in their knowledge of oral language.

TABLE 2

COMPARISON OF PRE/POST KNOWLEDGE AND COMPREHENSION SCORES OF ORAL LANGUAGE, AS MEASURED BY THE CALDWELL PRESCHOOL INVENTORY

Score	Pre-Mean	Post-Mean	N	Standard Error	t
Knowledge	16.88	21.92	24	.716	7.04*
Comprehension	30.21	43.13	24	1.200	10.77*

*Significant beyond the .01 level.

Objective 2

Pupils will develop a greater comprehension of oral language as measured by the Caldwell Preschool Inventory. (Refer to Appendix F for listing of items identified as comprehension.)

The analysis used for Objective 1 was used to test for differences between pre- and post-comprehension scores. As presented in Table 2, the students gain in Comprehension of Oral Language was significant.

Objective 3

Pupils will apply oral language as measured by the number of running words used by the pupil to the number of prompts used by the teacher in an interview utilizing the Scott Picture Inventory. The percent of prompts necessary in relation to the number of running words was determined.

As with Objectives 1 and 2, a matched-pairs t-test was used to compare pre-test scores to the post-test scores. As stated in the objective, these scores were the ratio of the number of running words used by the student to the number of prompts used. To calculate the significance of difference between pre- and post-means, percent of prompts in relation to the number of running words was first calculated. As revealed in Table 3, the decrease in percent of prompts necessary on the post test was significant.

TABLE 3

MATCHED-PAIRS T-TEST COMPARING PRE- AND POST-APPLICATION OF ORAL LANGUAGE SCORES

Pre-Mean (Percent of prompts to running words)	Post-Mean	N	Standard Error	t
80.0	1.46	24	38.57	2.04*

*Significant beyond the .01 level.

Objective 4

Pupils will respond more positively toward oral language as measured by the Affective Behavior Language Checklist (ABLC). The Affective Behavior Language Checklist jointly by the EPIC Evaluation Center

and Wilson Elementary District of Phoenix, Arizona.

Using the checklist, the teacher observed the students three times (in fall, at mid-term, and late spring). The checklists were then scored, yielding five scores which reflected the pupils' response to oral language with respect to (1) self, (2) groups, (3) organization of school and society, (4) general classroom behavior, and (5) the total of scores 1 through 4. The total score was used in the test of the objective.

The statistical analysis was again a one-way, repeated measures analysis of variance. The results of that analysis are shown in Table 4.

TABLE 4

REPEATED MEASURES ANALYSIS OF VARIANCE
ON ABLC SCORES
N = 24

Score	Source	SS	df	MS	F
Total	Treatment	8421	2	4211	73.87*
	Residual	2910	51	57	
Self	Treatment	1641	2	821	74.64*
	Residual	548	51	11	
Groups	Treatment	418	2	209	42.83*
	Residual	249	51	4.88	
Organization of School & Society	Treatment	70	2	35	5.00*
	Residual	357	51	7	
General Classroom Behavior	Treatment	349	2	175	37.31*
	Residual	239	51	4.69	

*Significant beyond the .01 level.

The large F values obtained for the four sub-scores (Self, Groups, Organization of School and Society, and General Classroom Behavior), and the total of the four sub-scores clearly demonstrates the significant positive change in student behavior as observed by the teachers. All five scores were significant beyond the .01 level in their change over the three periods of observation.

Using the F value for the Total Score on the ABLC for measuring the objective, it is very evident that objective 4 was met.

Measurement

Inferences drawn from statistical findings are limited by the validity and reliability of the measurement instruments involved.

FURTHER ANALYSIS

A correlation analysis was performed to determine the relationships between knowledge, comprehension, application, Peabody and ABLC (total) change scores. The results of this analysis are shown in Table 5.

TABLE 5

CORRELATION ANALYSIS

	Comprehension	Application	ABLC (Total)	Peabody
Knowledge	$.03^{2}$	$.54^{2}_{2}$	$.43^{2}_{2}$	$.19^{1}_{1}$
Comprehension		$.85^{2}$	$.37^{2}_{2}$	$.04^{1}_{1}$
Application			$.45^{2}$	$.04^{1}_{1}$
ABLC (Total)				$.06^{1}$

1. N = 18 $r(.05) = \pm .47$
2. N = 23 $r(.05) = \pm .43$

The highest correlation of the comparisons made was between the scores obtained by students on the Application and Comprehension items of the Caldwell PreSchool Inventory. Significant correlations resulted between the following scores:

(1) Caldwell Application and Caldwell Comprehension
(2) Caldwell Application and Caldwell Knowledge
(3) ABLC and Caldwell Knowledge
(4) ABLC and Caldwell Application

All other correlations were not statistically significant.

LIMITATIONS

Generalizability

The evaluation report and the evaluation program from which it results were designed and written specifically for the Franklin Early Childhood Program. There was no effort made to make the results generalizable to other situations.

Statistical Error

The use of probability statistics always incurs the possibility of making incorrect inferences from the data.

APPENDIX E

Richland School Facility (FY 1971)

Identification of Descriptive Variables

Evaluation of Project Objectives

Part I

Part II

Part III

IDENTIFICATION OF DESCRIPTIVE VARIABLES

RICHLAND SCHOOL FACILITY

BEHAVIOR

Cognitive: Knowledge, Comprehension, and Application levels

Affective: Response Level

Psychomotor: None

INSTRUCTION

Organization

Daily schedule: $5\frac{1}{2}$ hours. Five days a week, September 8 to June 9, non-graded, homogeneous grouping, twenty-eight students, team teaching with open structure and an individualized approach.

Content

Literature and library books ranging from preschool to third grade level

Example: Kin/Der and Little Owl books
The Goldern Story Teller

Records, films, filmstrips, tape recordings

Example: Teacher transcribed tapes at listening centers
Science filmstrips
8mm film loops
First Talking Storybook

Linguistic Sentence Builders
Van Allen Language Experience Approach to Reading
Television programs
Games: Mathematics and science concepts
Language games
Puzzles
Pictures made by Polaroid and 35mm cameras
Flash cards for Audio Flashcard Reader (EFI)

Method

As language deficiencies are identified, prescriptions were written for individual children. The children might or might

not be grouped for instruction as prescriptions were used. Prescriptions utilizing the individualized approach include the following:

1. Group and individual discussions
2. Field trips
3. Dramatic play
4. Role playing
5. Cooking and gardening experiences
6. Painting and drawing
7. "In-take" experiences, as listening, viewing filmstrips, etc.
8. Constructing

Facilities

1. Regular classroom in primary school
2. Bungalow used for small group activities

Equipment

1. Tape recorder
2. Listening posts
3. Phonograph
4. Audio Flashcard system
5. Auto harp
6. Filmstrip projector
7. Film projector
8. Nine-passenger station wagon used for filed trips within the community
9. Toys, Cuisenaire rods, sandbox, gardens, hutch for rabbits

Cost (FY 1971)

Personnel
- Classroom teacher: paid by district
- Instructional Assistant: $14,071 per year
- Aide: 180 days, 7 hours per day, $2520
- Services of half-time project secretary: Approximately $25 per week
- Coordinator: one fourth time, approximately $4510

Evaluation Services: $1275 per year
Instructional Materials: $600 per year
Curriculum Supplies: $100 per year
Test Materials: $150 per year
Travel: $600
Consultants: $200
Office Supplies: $275
Psychometrist: 1 day per month, $775

INSTITUTION

Students

1. Total of twenty-eight six to eight years of age at the beginning of the school year.
2. Normal intelligence as measured by Wechsler Primary Test and the California Mental Maturity Test.
3. Immature in language development
   a. Communicate only with signaling or fragmentary sentences
   b. Avoid relating experiences
   c. Avoid spontaneous or imaginative conversation
   d. Are reluctant to communicate
   e. Uses non-standard English
4. Selected on the basis of:
   a. Information on cumulative folder
   b. Language score on California Test of Mental Maturity
   c. Recommendation of school principal, counselor, kindergarten and first grade teacher
5. Emotionally stable
6. Physically unimpaired
7. Not monolingual speakers of a language other than English.

Staff

1. Instructional Assistant--Joan Gouveia (215 days per year)
   a. Identification Data:
      (1) Age: 37
      (2) Sex: Female
      (3) Race: Caucasian
      (4) Citizenship: United States
      (5) Religion: Protestant
      (6) Health: Good

   b. Education and Experience:
      (1) Education major: General Elementary Credential, Minor in Science
      (2) Graduate student
      (3) Ten years in public school, primary classroom, Master teacher six years
      (4) Two years at Fresno State Laboratory School as a supervising teacher
   c. Professional Affiliations:
      (1) CTA
      (2) NEA
      (3) CURA

d. Duties
   (1) Select students on the basis of preliminary testing and other established criteria.
   (2) Organize classroom
   (3) Diagnose individual needs
   (4) Write prescriptions utilizing the individualized approach
   (5) Instruct pupils in activities related to prescriptions
   (6) Evaluate growth based upon behavioral objectives and pre-testing and post-testing
   (7) Serve as a model of standard English usage
   (8) Direct activities of aides and substitute teachers; coordinate activities with school personnel, and facilitate parent participation
   (9) Team leader--215 days per year
   (10) Establish curriculum for open structure or organization

2. Teacher--Mrs. Marcia Krause (176 days per year)
   a. Identification Data:
      (1) Age: 24
      (2) Sex: Female
      (3) Race: Caucasian
      (4) Citizenship: United States
      (5) Religion: Protestant
      (6) Health: Good

   b. Education and Experience:
      (1) General elementary credential with an English major and a music minor
      (2) Two years teaching in the primary

   c. Professional Affiliations:
      (1) CTA
      (2) NEA

   d. Duties:
      (1) Serve as Richland School District representative to the project
      (2) Organize classroom
      (3) Diagnose individual needs
      (4) Instruct pupils in activities related to prescriptions
      (5) Serve as model of standard English usage

3. Aide--Doris Friesen (180 days per year)
   a. Identification Data:
      (1) Age: 35
      (2) Sex: Female
      (3) Race: Caucasian
      (4) Citizenship: United States
      (5) Religion: Protestant
      (6) Health: Good
      (7) Writes for local newspaper, positive attitude, eager to learn, interested in education

   b. Education and Experience:
      (1) One and one-half years Business College--typing, adding machine
      (2) Aide in the Richland District
      (3) Cub Scout Den Mother
      (4) Library Aide
      (5) Playground Aide and parent in the Richland School District

   c. Duties:
      (1) The Aide assists:
         (a) by reading stories to children
         (b) on field trips
         (c) by holding individual and small group discussions
         (d) in general classroom management
         (e) by observing and recording behavior
         (f) by preparing materials of instruction

4. Administrator--Miss Nina Jorstad (one-fourth time involvement)
   a. Identification Data:
      (1) Age: 60
      (2) Sex: Female
      (3) Race: Caucasian
      (4) Citizenship: United States
      (5) Religion: Lutheran
      (6) Health: Good

   b. Education and Experience:
      (1) History and English major
      (2) Masters degree in Elementary Education
      (3) Teacher
         (a) Rural School, Iowa, three years
         (b) Elementary grades, Iowa, two years
         (c) Secondary school, Iowa and Wisconsin, three years

c. Professional Affiliations:
   (1) NEA, CTA, California Association for Childhood Education
   (2) Association for Supervision and Curriculum Development
   (3) National Committee on Early Childhood Education
   (4) Kern County International Reading Association
   (5) Associate Member, California Elementary School Administrators Association

d. Duties:
   (1) Administration
   (2) Coordination

Specialists

1. Psychologist
2. Hearing specialist
3. Speech therapist
4. School nurse

Families of Participants

Comparatively permanent residents in District
May be involved as community resource people
Low to upper middle class socioeconomic group
Variety of racial backgrounds
English spoken in home

Community

Twenty-one miles northwest of Bakersfield
Agricultural area
Population 8,170
Conservative, stable community
Most of the population is American, Caucasian, Protestant
Male Mexican-American migrant population occupations built around agriculture
High School--highest educational institution
Local police and fire departments
Other social services furnished by Kern County

POPULATION

The population in concern consists of those non-lingual children between the ages of six and eight and residing in Richland School District (Shafter, California and vicinity).

SAMPLE

There was only an evaluative sample; no control sample was used. The sampling procedure was purposive and as follows:

1. Total of twenty-eight; six to eight years of age.
2. Normal intelligence as measured by Wechsler Primary Test, California Mental Maturity Test.
3. Immature in language development:
   a. Communicate only with signaling or fragmentary sentences
   b. Avoid relating experiences, engaging in spontaneous or imaginative conversation
   c. Are reluctant to communicate
   d. Use non-standard English
4. Selected on basis of:
   a. California Mental Maturity Test
   b. Recommendation of school principal, counselor, kindergarten and first grade teacher
5. Emotionally stable
6. Physically unimpaired
7. Not monolingual speakers of a language other than English.

PROCEDURES

1. The sample was selected during the first three weeks of September, 1969.
2. All pre-test data were collected during the last two weeks of September.
3. All mid-test data were collected during the first three weeks of January.
4. The post-test data were collected between May 1 and May 15.
5. The EPIC Evaluation Center staff coded the Cooperative Primary Test for knowledge and comprehension items.

EVALUATION OF THE PROJECT OBJECTIVE (FY 1970)
PART I
ANALYSIS OF THE DATA

Project Objective

1.0 To increase in-school student performance on the Cooperative Primary Test by 15 percent mean improvement in nine months.*

From Table 6 below one can see that the overall objective was met on all subtests of the Cooperative Primary Tests except for the listening test. All gains are in terms of percentile scores. Since there were different numbers of items and different norms on the two versions of this test, the percent gain in mean percentile score was used rather than the percent of raw score gain. It is recognized that the percent of percentile increase is not as directly related to the actual amount learning as raw scores are; however, a systematic bias would result from comparing the raw scores of the two forms used. Thus a measure of relative increase is being used in preference to a biased measure of absolute increase.

Procedural Objectives

Upon Exit from this program each child will:

1.1 Display increased ability to read words, sentences, paragraphs, and longer passages with understanding as measured by scores on the Primary Cooperative Test--Reading.

A matched pairs "t" test was performed on the mean difference between the pre- and post-test percentile scores obtained on the Reading subtest of the Cooperative Primary Test. The significant result (See Table 6) indicates that at an alpha level of .05 the children did increase these reading skills, thus meeting the objective.

1.2 Display an increased ability to listen with comprehension as measured by the scores on the Cooperative Primary Test--Listening.

From Table 6 it can be seen that the difference in mean percentile scores on the listening subtest was significantly different between Fall and Spring. Thus, the objective can be considered as having been met.

*The actual interval between pre- and post-test was actually only seven months.

1.3 Display an increased comprehension of word analysis as measured by scores on the Cooperative Primary Test--Word Analysis.

The result of the matched pairs "t" test for the word analysis section supports the 26 percent gain as a real increase. However, it should be noted that the test statistic is exactly equal to the critical value at the .05 level for 22 degrees of freedom.

1.4 Display an increased comprehension of mathematical understandings as measured by scores of the Cooperative Primary Test--Mathematics.

The analysis of the mathematics subtest scores displayed in Table 6 shows a significant "t" statistic. We may again believe that a real gain has been achieved in this area.

TABLE 6

Matched pairs "t" statistics and percent gain for Subtest of the Cooperative Primary Tests.

	Listening	Word Analysis	Mathematics	Reading	
"t" Statistic*	3.53	1.72	2.91	3.29	
% gain in percentile score**	116%	26%	71%	169%	

*Critical value for a one tailed "t" statistic at .05 alpha level and 22 degrees of freedom is 1.72.

**Criterion was 15% gain (percentile gain was computed for all subtests).

EVALUATION OF THE PROJECT OBJECTIVE (FY 1971)*

PART I

ANALYSIS OF THE DATA

Project objective:

To operate a model classroom in which individually prescribed instruction will result in improving primary pupils' oral language facility. Performance criterion: 15% mean improvement, following nine months of prescriptive individualized instruction on the Cooperative Primary Tests (ages 6-8).

Procedural objectives:

Ages 6-8. Upon exit from this program each child will:

Display increased listening comprehension, as measured by scores on Part I of the Cooperative Primary Tests (Listening, 12A).

Display increased recall, as measured by scores on Part II of the Cooperative Primary Tests (Listening, 12A).

Display increased interpretation-evaluation-inference, as measured by scores on Part III of the Cooperative Primary Tests (Listening, 12A).

Display increased reading comprehension, as measured by scores on Part I of the Cooperative Primary Tests (Reading, 12A).

Display increased meaning extraction, as measured by scores on Part II of the Cooperative Primary Tests (Reading, 12A).

Display increased interpretation-evaluation-inference, as measured by scores on Part III of the Cooperative Primary Tests (Reading, 12A).

In analyzing the objectives related to the Cooperative Primary Tests, scores were available for all three testing periods (pre-, mid-, post-) only for the first grade students. Due to the fact that a different

*See preceding pages for Evaluation of the Project Objective (FY 1970)

procedure of analyzing the test results was necessary from the previous year's, administrations test score breakdowns were not available for pre-test scores (administered during the spring of 1970) of second and third graders in the program.

The analysis of first grade test scores consisted of both a matched pair "t" statistics (mid- and post-scores) and a repeated measures analysis of variance (pre- mid- and post-test scores). For the second and third grade students involved in the project test scores (mid- and post-) were analyzed using a matched pair "t" statistics.

The results of the analysis are presented in Tables 1-4. Also presented in Tables 1, 3 and 4 are the percentage gains or losses by first, second and third grade students on the Cooperative Primary Tests. The percent gain as computed is equal to the gain from mid-score using the mid-score as the unit of measurement. Since pre-scores were not available for grades 2 and 3, all three grades' percent gains were calculated from mid-scores. A special note should be made of the fact that the percent gains represent approximately one-half year's time of instruction, and the criterion expected was to represent a year's instruction.

Percent losses evident point out that unstable test scores that often occur over short periods of measurement.

TABLE 1

Grade 1 - Matched pair "t" statistics and percent gain for sub-scores of the Cooperative Primary Tests (mid and post test scores)

	Listening-Comprehension	Listening-Recall	Interpretation-Evaluation-Inference (Listening)	Reading-Comprehension	Meaning-Extraction (Reading)	Interpretation-Evaluation-Inference (Reading)
"t" statistic	11.99*	-4.09*	4.82*	.255 (NS)	-6.95*	-7.66*
% gain from mid-score**	230.0	-50.8	71.8	5.0	-8.0	-58.5

*Significant beyond .01 level.
**Criterion was 15% gain.

Table 1 presents the statistical analysis on the Cooperative Primary Tests (mid and post) for Grade 1. In two parts of the Cooperative Primary Tests the first grade's gain was significant beyond the .01 level. Therefore pre-post test comparisons demonstrated that two of the six procedural objectives were met by the first graders.

Table 2 presents the results of statistical analysis for the pre-mid- and post-test scores of the first graders. The student gains in Listening and Reading scores were significant. Repeated measures analysis of variance was used in testing the significance of students gains. The gains made by students in Reading and Listening over the three test administrations were significant beyond the .01 level. Using this analysis as a measure of the project objective, it is evident that the project objective was met for the first grade students.

TABLE 2

Analysis of Variance for Grade 1 Listening and Reading Test scores (Pre- Mid- and Post-Results)

Source	SS	df	MS	F	p
Listening Scores					
Total	1329	20			
Subjects	118	6			
Treatments	977	2	488.5	25.05	$<.01$
Error		12	19.50		
Reading Scores					
Total	2202	20			
Subjects	68	6			
Treatments	1992	2	996	84.19	$<.01$
Error	142	12	11.83		

Table 3 statistical analysis results indicate that students did gain significantly (only at the .05 level) in listening comprehension, interpretation-evaluation-inference (Listening) and in Reading Comprehension. The analysis did indicate a loss in two areas of the test results between the mid- and post-testing for the second grade students. Since the losses were measured only between mid- and post-administrations and no pre-score was available, the loss might be attributed to unstable test score results. The project objective was met in four of the six areas of the test.

TABLE 3

Grade 2 - Matched pair "t" statistics and percent gain for sub-scores of the Cooperative Primary Test (mid-and post-test scores)

	Listening-Comprehension	Listening-Recall	Interpretation-Evaluation-Inference (Listening)	Reading-Comprehension	Meaning-Extract (Reading)	Interpretation-Evaluation-Inference (Reading)
"t" statistic	2.65*	2.36	2.83*	3.05*	-.82	-2.75*
% gain from mid-score**	12.5	24.5	23.5	53.1	-16.5	-24.9

*Significant beyond .05 level.
**Criterion was 10% gain.

Table 4 presents the "t' statistics and percentage gains for grade 3 on the Cooperative Primary Test. Three of the six areas were significant beyond the .01 level. These were the areas of Listening Comprehension, Interpretation-Evaluation-Inference (Listening) and Reading Comprehension. Gains in the other areas were not significant. The project objective (% gain) was met in five of the six areas of the test.

TABLE 4

Grade 3 - Matched pair "t" statistics and percent gain for sub-scores of the Cooperative Primary Test.

	Listening-Comprehension	Listening-Recall	Interpretation-Evaluation-Inference (Listening)	Reading-Comprehension	Meaning-Extraction (Reading)	Interpretation-Evaluation-Inference (Reading)
"t" statistic	3.93*	1.49 (NS)	4.25*	4.64*	.79 (NS)	1.58 (NS)
% gain from mid-score**	14.9	6.0	21.3	155.0	20.0	38.5

*Significant beyond .01 level.
**Criterion was 10% gain.

PART II

ADDITIONAL SPECIFIC OBJECTIVES (FY 1970)

1. Pupils will develop a greater knowledge of oral language as measured by the Cooperative Primary Test.

2. Pupils will develop a greater comprehension of oral language as measured by the Cooperative Primary Test.

3. Pupils will apply oral language as measured by categories 8 and 9 of Flanders' Interaction Analysis System.

4. Pupils will respond more positively toward oral language as measured by the Affective Behavior Language Checklist (ABLC).

ANALYSIS OF THE DATA

Objective 1

Pupils will develop a greater knowledge of oral language as measured by the Cooperative Primary Test.

The knowledge items of the Cooperative Primary Test which pertained to oral language were identified by the staff of the EPIC Evaluation Center.* The knowledge scores resulting from the three administrations of the Cooperative Primary Test were analyzed by means of a one-way, repeated measures analysis of variance. Table 7 contains the results of this analysis.

TABLE 7

ONE-WAY, REPEATED MEASURES ANALYSIS OF VARIANCE COMPARING PRE-, MID-, AND POST-KNOWLEDGE OF ORAL LANGUAGE SCORES

N = 23

Source	SS	df	MS	F
Treatment	1234.52	2	617.26	49.37
Residual (error)	550.15	44	12.50	
$F_{(.01,\ 2,\ 44)}=5.12$				

The fact that the F-value in Table 7 was greater than the .01 F-value for two and forty-four degrees of freedom indicates that the students did increase their knowledge of language arts, and therefore, the objective was achieved.

Objective 2

Pupils will develop a greater comprehension of oral language as measured by the Cooperative Primary Test.

The Cooperative Primary Test was also coded with respect to comprehension items.* The scores resulting from these items were analyzed by a one-way, repeated measures analysis of variance (Table 8).

TABLE 8

ONE-WAY, REPEATED MEASURES ANALYSIS OF VARIANCE COMPARING PRE-, MID-, AND POST-COMPREHENSION OF LANGUAGE ARTS SCORES
N = 23

Source	SS	df	MS	F
Treatment	237.07	2	118.54	6.24
Residual (error)	836.26	44	19.01	
$F_{(.01,\ 2,\ 44)}=5.12$				

As with the test of Objective 1, the analysis clearly shows that Objective 2 was met: the F-test significant at the .01 level strongly indicates that the students did increase their comprehension of language arts.

Objective 3

Pupils will apply oral language as measured by categories 8 and 9 of Flanders' Interaction Analysis System.

The teacher was not able to complete the collection of Flanders' data. Therefore, as there was no other suitable data available with which to test this objective, no test was possible.

Objective 4

Pupils will respond more postively toward oral language as measured by the Affective Behavior Language Checklist (ABLC).

The Affective Behavior Language Checklist used to measure the behavior in Objective 4 was adapted from the Affective Behavior Checklist developed jointly by the EPIC Evaluation Center and Wilson Elementary District of Phoenix, Arizona.

Using the checklist, the teacher observed the students three times: In September, January, and again in April. The checklists were then scored at EPIC, yielding five scores

which reflected the pupils' response to oral language with respect to (1) self, (2) groups, (3) organization of school and society, (4) general classroom behavior, and (5) the total of scores 1 through 4. The total score was used in the test of the objective.

The statistical analysis was again a one-way, repeated measures analysis of variance. Table 9 contains a summary of this analysis and the summaries of the analyses of the four subscores.

TABLE 9

REPEATED MEASURES ANALYSIS OF VARIANCE
ON ABLC SCORES
N = 26

Score	Source	SS	df	MS	F
Total	Treatment	884.64	2	442.32	21.01**
	Residual	1052.50	50	21.05	
Self	Treatment	150.46	2	75.23	15.40**
	Residual	244.00	50	4.88	
Groups	Treatment	110.48	2	55.24	12.36**
	Residual	223.50	50	4.47	
Organization of School and Society	Treatment	18.76	2	9.38	1.73
	Residual	272.00	50	5.44	
General Classroom Behavior	Treatment	14.54	2	7.27	1.36
	Residual	267.00	50	5.34	

**This value for F is significant beyond the .01 level: $F_{(.01,\ 2,\ 50)}=5.06$

The highly significant F-value for total score indicates that the pupils did respond more positively toward oral language in April than in September: the objective was met. The significant F-values for Self and Group indicate that most of the change in the total score occurred in the response toward oral language with respect to Self and Group. There was no change in the pupils' responses toward oral language with respect to the Organization of School and Society or General Classroom Behavior.

FURTHER ANALYSIS

A correlation analysis was performed to determine the relationships between knowledge, comprehension, California Test of Mental Maturity, and ABLC (total) change scores. The results of this analysis are in Table 10.

TABLE 10

CORRELATION ANALYSIS
N = 23

	Comprehension	CTMM	ABLC (total)
Knowledge	0.21	-0.11	0.01
Comprehension		0.26	0.30
CTMM			0.19

When N = 23, a correlation must be greater than .41 or less than -.41 to be significant at the .05 level. As all the values in Table 10 fall between .41 and -.41, it can be implied that there are no real relationships between the various scores.

SUMMARY

The objectives concerned with knowledge of oral language, comprehension of oral language, and response toward oral language were met. Because of a lack of data, the objective concerned with the application of oral language could not be tested.

A correlation analysis revealed that there were no significant relationships between the various behavior variables of this study.

LIMITATIONS

Generalizability

This evaluation report and the evaluation program from which it results were designed and written specifically for the Richland Elementary School Early Childhood Program. There was no intent or effort made to make the results herein generalizable to other situations.

Statistical Error

The use of probability statistics always incurs the possibility of making incorrect inferences from the data.

Measurement

Inferences drawn from statistical findings are limited by the validity and reliability of the measurement instruments involved.

PART II

ADDITIONAL SPECIFIC OBJECTIVE (FY 1971)

Pupils will respond more positively toward oral language as measured by the Affective Behavior Language Checklist (ABLC).

The Affective Behavior Language Checklist used to measure the behavior in Objective 4 was adapted from the Affective Behavior Checklist developed jointly by the EPIC Evaluation Center and Wilson Elementary District of Phoenix, Arizona.

Using the checklist, the teacher observed the students three times: In September, January, and again in April. The checklists were then scored yielding five scores which reflected the pupils' responses to oral language with respect to (1) self, (2) groups, (3) organization of school and society, (4) general classroom behavior, and (5) the total of scores 1 through 4. The total score was used in the test of the objective.

The statistical analysis was again a one-way, repeated measures analysis of variance. Table 5 contains a summary of this analysis and the summaries of the analyses of the four sub-scores.

TABLE 5

REPEATED MEASURES ANALYSIS OF VARIANCE
ON ABLC SCORES
N = 27

Score	Source	SS	df	MS	F
Total	Treatment	3244	2	1622	99.09*
	Residual	851	52	16.37	
Self	Treatment	282	2	141	63.80*
	Residual	115	52	2.21	
Groups	Treatment	603	2	302	63.33*
	Residual	248	52	4.77	
Organization of School & Society	Treatment	8	2	4	.797
	Residual	261	52	5.02	
General Classroom Behavior	Treatment	260	2	130	87.84*
	Residual	77	52	1.48	

*Significant beyond .01 level.

The total score was used in measuring the objective. It is clear from Table 5 that the objective was met as measured by the total score on the ABLC. The table also shows that the positive change as observed by the teachers was significant in the areas of Self, Groups, and General Classroom Behavior. The positive change in Organization of School and Society was not significant.

PART III

FURTHER ANALYSIS

Analysis of Variance, repeated measures, technique was used to determine the significance of the pre-mid- and post-results of the Interview Inventory. The analysis was conducted on the five different sections of the Interview Inventory. The following five tables report the mean ratings for each section of the inventory for pre-mid- and post-observations. The sections reported are: Student Affective Behavior, Student Effective Behavior, Student Logical Thinking, Parent Affective Behavior, and Parent Effective Behavior. Ratings by the teachers were on a 1-5 scale, with number one indicating positive behavior and number 2 indicating negative behavior.

TABLE 6

MEAN RATINGS BY TEACHERS FOR STUDENT AFFECTIVE BEHAVIOR UTILIZING THE INTERVIEW INVENTORY
N = 14

OBSERVATIONS	MEAN RATINGS
Pre	2.7
Mid	2.1
Post	2.0

A repeated measures Analysis of Variance resulted in F = 6.52 which was significant at the .01 level, F (.01, 2.26) = 5.53. The mean ratings of the teachers did change positively on the three observations.

TABLE 7

MEAN RATINGS BY TEACHERS FOR STUDENT EFFECTIVE BEHAVIOR UTILIZING THE INTERVIEW INVENTORY
N = 14

OBSERVATIONS	MEAN RATINGS
Pre	3.3
Mid	2.2
Post	2.1

A repeated measures Analysis of Variance resulted in F = 9.52 which was significant at the .01 level, F (.01, 2.26) = 5.53. The mean ratings of the teachers did change positively on the three observations.

TABLE 8

MEAN RATINGS BY TEACHERS FOR STUDENT LOGICAL THINKING UTILIZING THE INTERVIEW INVENTORY

N = 14

OBSERVATIONS	MEAN RATINGS
Pre	3.5
Mid	2.7
Post	2.1

A repeated measures Analysis of Variance resulted in F = 6.03 which was significant at the .01 level, F (.01, 2.26) = 5.53. The mean ratings of the teachers did change positively on the three observations.

TABLE 9

MEAN RATINGS BY TEACHERS FOR PARENT AFFECTIVE BEHAVIOR UTILIZING THE INTERVIEW INVENTORY

N = 14

OBSERVATIONS	MEAN RATINGS
Pre	2.5
Mid	2.0
Post	1.8

A repeated measures Analysis of Variance resulted in F = 9.74 which was significant at the .01 level, F (.01, 2.26) = 5.53. The mean ratings of the teachers did change positively on the three observations.

TABLE 10

MEAN RATINGS BY TEACHERS FOR PARENT EFFECTIVE BEHAVIOR UTILIZING THE INTERVIEW INVENTORY

N = 14

OBSERVATIONS	MEAN RATINGS
Pre	2.6
Mid	1.7
Post	1.9

A repeated measures Analysis of Variance resulted in F = 13.08 which was significant at the .01 level, F (.01, 2.26) = 5.53. Even though the mean ratings were not stable over the three observations, the general movement was in a positive direction.

LIMITATIONS

Generalizability

This evaluation report and the evaluation program from which it results were designed and written specifically for the Richland Primary School Early Childhood program. There was no intent or effort made to make the results herein generalizable to other situations.

Statistical Error

The use of probability statistics always incurs the possibility of making incorrect inferences from the data.

Measurement

Inferences drawn from the statistical findings are limited by the validity and reliability of the measurement instruments involved.

APPENDIX F

CALDWELL PRESCHOOL INVENTORY

Knowledge Items	Comprehension Items
1-4	5-12
13-18	19-33
34	35-36
37	38-47
48-51	52-56
57-58	59-66
67-70	71-78
79-80	81-82
83-85	

Appendix G

Affective Behavior in Language Checklist
Title III ESEA Project #68-5141 - Kern County, California
Franklin School Facility
✓ - What he does Blank - He doesn't do it

Name _____

Date _____

Identify	SELF - ATTITUDES	Select One	SOCIAL ROLE	Select One	GROUP STATUS
	Withdraws (no verbal response)		Unwilling to leave parent		Rejected
	Isolates self		Dependent on teacher		Non-entity
	Isolated by classmates		Non-participant		Accepted
	Responds verbally w/students		Isolated activities		Chosen
	Responds verbally w/teacher		Watches group		None of above
	Experiments w/language		Participant		
	Brings materials to class on t/request		Leader		RESPONSE TO TEACHER'S SUGGESTIONS
	Brings materials w/out t/request		Disrupter		Cries
	Uses resources w/teacher direction		None of above		Hostile
	Uses resources w/out t/direction				Rejects
	GROUP ATTITUDE		RESPONSE TO TEACHER'S EXPECTATIONS		Accepts w/out reacting
	Verbally abuses others		Negative		Accepts w/interest
	Communicates physically		Indifferent		None of above
	Does not interact w/group		Eager		
	Communicates w/classmates		None of above		RESPONSE TO OTHER STUDENTS
	Dominates conversation				Withdraws
	Listens to conversation of others		CLASSROOM EFFORT		Fights back verbally
	Verbally accepts group decisions		None		Verbalizes to teacher
	Verbal leadership of group		Feeble		Verbalizes to student
			Strong		None of above
	SCHOOL ATTITUDES				
	Attends school unwillingly				SPECIAL PROBLEMS
	Classroom rules disobeyed				Overly dependent
	Adult authority defied				Fearful
	Attends school willingly				Immature language (baby talk)
	Classroom rules obeyed				Excessive talking
	Adult authority respected				Showing off (verbal)
					None

Appendix H

HUNTER - GOUVEIA INTEREST INVENTORY

NAME_____ YEAR IN SCHOOL_____ AGE_____

This is an interview rating inventory. Place in the boxes the number for each area that you consider best gives the rating of the individual behavior. The number one indicates positive behavior; number five indicates negative behavior.

PUPIL

AFFECTIVE BEHAVIOR		Rating 1 2 3 4 5
1. Poised	Timid	
2. Confident	Anxious	
3. Comfortable	Ill at ease	
4. Proud	Apologetic	
5. Displayed Interest	Inattentive	
6. Involved	Not involved	
7. Positive in Reporting	Defensive	
8. Sought approval	Antagonistic	

EFFECTIVE BEHAVIOR (Expression)		
1. Communicated Socially	Spoke only when encouraged	
2. Initiated Interview	Required Prompting	
3. Introduced First Subject	Avoided Subject Area	
4. Questioned Parents	Avoided questioning parents	

PARENT

AFFECTIVE BEHAVIOR		Rating 1 2 3 4 5
1. Comfortable	Nervous	
2. Confident	Anxious	
3. Approving	Critical	
4. Interested	Uninterested	
5. Involved	Apathetic	
6. Proud	Apologetic	

EFFECTIVE BEHAVIOR (Expression)		
1. Communicates Socially	Non-verbal with Pupil	
2. Initiated Interview	Reluctant to Speak	
3. Questioned Pupil	Avoided Subject Area	
4. Praised Pupil's Efforts	Critical of Pupil's Efforts	
5. Assisted Pupil	Very Demanding of Pupil	
6. Accepted Pupil's Decision	Questioned Pupil's Judgment	

LOGICAL THINKING OF PUPIL

Rate the following areas of logical thinking of the pupil by using the one to five rating scale used in the above portion of the inventory.

	Rating 1 2 3 4 5
1. Type of statements used. (Complex - - Simple)	
2. Manner in which the student presented his school material. (Detailed explanation - - Non explanation)	
3. Drawing conclusions about his own situations. (Highly involved - - Simple)	
4. Projecting future plans for scholastic achievement. (Concrete realistic goals - - Evasive unrealistic goals)	
5. Did the child accomplish the projected plan(s) made at the previous conference? (Successful - - Lacked accomplishment)	

COMMENTS: